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ABSTRACT

This paper examines some of the assertions in support of major public policy changes that would aid the delivery of education to adults and reviews some of the adult education programs and policy proposals currently being discussed. The introduction (section 1), provides statistical and background information on adult participation in education. Section 2 describes the current overall level of participation in adult education and identifies those factors (age, previous education, income) which most strongly affect it. Trends in participation over time are examined and target groups for proposed programs are also described. In the third section, several estimates of future participation in adult education are discussed in the following areas: projections based on total participation rates, age, and previous education; continuation of increase in participation rates; and latent demand for adult education. Section 4 describes the extent of the existing public investment in the adult education and discusses some of the proposals currently under consideration, grouped as follows: (1) development of instructional materials and methods; (2) development and provision of facilitating services; (3) removal of obstacles to further adult participation; (4) major funding proposals including subsidies, entitlements, and loans; and (5) creation of tax incentives. The final section suggests priorities among these proposals and places them within the context of other competing demands for public support. (SH)

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An Occasional Paper/Aspen Institute for Humanistic Studies
Program in Education for a Changing Society

The Adult, Education and Public Policy

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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ASPEN INSTITUTE PROGRAM IN EDUCATION FOR A CHANGING SOCIETY

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FOREWORD

The Program in Education for a Changing Society has been based on two assumptions. The first is that the impetus for change in educational institutions, from the preschool through the university, is more likely to derive from changes in the wider society than from forces within the institutions themselves. Educational policy must be formed in concert with other aspects of public policy and program development, such as taxation, housing, pensions, and income transfers, as well as research and training. The second assumption is that current definitions of "education" may need to be changed.

These two assumptions guided the selection of topics to be analyzed by participants of the program and also guided the choice of procedures to be used. The program sought to identify those areas where there may be a connection, or "fit," between the possible changes society will undergo in the late 1970s and 1980s and the capacity of educational institutions at the federal, state, and local levels to play a role in these changes. It is the goal of the program to propose action to be taken in this area during the 1977-90 period.

For the first phase of the program, topics to be analyzed were chosen that met the following criteria:

a. There should be a clear connection between the topic under consideration and the current broad definition of "education";

b. There should be a reasonable possibility that specific proposals concerning the topic could be translated into action by state and/or federal authorities and public and private institutions,

c. There should be a reasonable possibility that action proposed as a result of the Program on Education could be effective before the end of the 1977-90 period.

Initially, the program focused on two general categories: (1) The Social Context of Educational Policy, and (2) Finance and Governance of Education. Although a separation was necessarily made between pre-collegiate and postsecondary levels of education for some of the topics in the categories, an effort was made to develop information and recommendations that provide links among all levels of education. This effort included the production of a set of background policy papers to provide a basis for analyzing recent experience and/or for outlining oncoming social and education issues in a format usable by program participants. These papers were prepared by scholars and education policy commentators, and were first reviewed by peers of the authors in small group meetings during the spring of 1975 and 1976. Then the revised papers (included in this series) were used as the basis for workshops held in Aspen, Colorado, in July 1975 and 1976. The titles of these papers are:

THE DEMOGRAPHIC CONTEXT OF EDUCATIONAL POLICY PLANNING by Peter A. Morrison of the RAND Corporation

EDUCATIONAL INDICATORS AND EDUCATIONAL POLICY by Thomas C. Thomas and Meredith A. Larson of Stanford Research Institute

A DEVELOPMENTAL PSYCHOLOGIST LOOKS AT EDUCATIONAL POLICY: OR THE HURRIER I GO THE BEHINDER I GET by Helen L. Bee, a developmental psychologist

STUDENTS, SCHOOLS, AND EDUCATIONAL POLICY: A SOCIOLOGICAL VIEW by Sarane Spence Boocock of Rutgers University

THE DECLINING ECONOMIC VALUE OF HIGHER EDUCATION AND THE AMERICAN SOCIAL SYSTEM by Richard B. Freeman of Harvard University

THE NOT-SO-STEADY STATE OF GOVERNANCE IN HIGHER EDUCATION by Donald M. Stewart, currently of Spelman College

GOVERNANCE OF ELEMENTARY AND SECONDARY EDUCATION by Michael W. Kirst of Stanford University

HEALTHY, WEALTHY AND WISE: BACK-DOOR APPROACHES TO EDUCATION by Henry J. Aaron, presently with the Department of Health, Education and Welfare

THE ADULT, EDUCATION, AND PUBLIC POLICY by Michael O'Keefe, presently with the Department of Health, Education and Welfare

SCHOOL SITE MANAGEMENT by Lawrence C. Pierce of the University of Oregon

The authors, selected reviewers, and other program participants representing different education constituencies had a double task at these workshops: to criticize the documents and to comment on their implications for change.

The subsequent work of the program involves the preparation of statements of policy implications and proposals for action based upon the conclusions reached by the 1975 and 1976 workshops. These statements and proposals will be presented in a form that could serve as the basis for policies and programs for state and local governments, private institutions, the Congress and federal agencies, as well as new intergovernmental arrangements. The director of the Program in Education plans to be available for consultation with appropriate authorities on policy alternatives and proposals for action.

Francis Keppel
Director
Program in Education
for a Changing Society

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I. INTRODUCTION*

While education in the United States has always been the domain of more than the young, the last two decades have seen an increase in both the numbers of adults participating in education and in the general awareness of their participation. Large numbers of adults can be found registered formally as full-time or part-time college students, enrolled in programs sponsored by employers, or engaged in deliberate and sustained self-instruction. Education is made available to adults by elementary and secondary schools, colleges and universities, proprietary and correspondence schools, businesses, government, the military, and churches and other community organizations. The ubiquitous and popular "how-to" manuals available in local bookstores promise to instruct the purchaser in anything from accounting to violin playing and zoology.

Recently, too, general public awareness of the adult as learner has grown as has the number of proposals for the expansion and creation of government programs to foster adult participation in education. The apparent causes of this growth in interest are quite varied. Policy discussions and actions in a number of European nations are one cause. Great Britain, with its Open University, and France, Germany, and Sweden, with their far-reaching social legislation providing for worker sabbaticals to pursue further education and training, have stimulated policy discussions of the need for similar programs in this country. The Organization for Economic Cooperation and Development (OECD) has given wide publicity to the concept of "recurrent education" and to programs and proposals to take full-time sabbaticals in mid-career for further education or training.[1] The European programs are intended to serve two social purposes. The first is to redress past inequities for the individual who, because of economic or social status, was denied full educational opportunity when young. For that person, a "second chance" is provided to obtain the level and kind of education desired. The second purpose is to assist individuals in the labor market to respond to the shifting demands caused by new technology by providing opportunities to update their knowledge and skills.

Another source for the blossoming interest in adult education in this country is that adults are simply becoming more numerous and older. In 1960, 108 million people were 21 years or older. By 1974, that number had risen to 132 million, and U. S. Bureau of the Census estimates place it at almost 137 million in 1976. As the postwar baby boom cohort ages, and as the lowered fertility rates of the sixties and seventies hold the magnitude of the next generation in check, there will be a gradual shift to a substantially more middle-aged population. By the year 2000, the median age of the United States population is estimated to become 34.8, up substantially from 28.8 in 1975. These shifts in the demographic constitution of our population probably will have a significant impact on all aspects of our society including education for the adult.[2]

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*The author is indebted to many who reviewed earlier drafts of this paper and provided very helpful criticisms. These reviewers include colleagues and friends at the University of Illinois, the National Institute of Education (NIE), and elsewhere; the review panel who persisted through the entire first draft and helped the author discover what it was he was saying; those who participated in the Aspen Seminar in the summer of 1976; and, most especially, Francis Keppel, Michael Timpane, and Nancy Pelz-Paget, the staff of the Aspen Program. Finally, my thanks to Linda Wells Gibbons who carefully typed many of these pages more times than is safe for me to remind her.

The changing role of women in our society over the past five to ten years also has had an impact. As more and more women have decided to move into the labor market, and as the divorce rate has increased, the adult female in our society has had greater needs and desires for some form of education to help ease her entry or reentry into the work force. Over the last two decades, while the number of men in the work force has increased by 19 percent, participation by women has increased by some 74 percent. In 1976 alone, the number of women in the labor force increased by 4.8 percent, more than double the increase for men (2.0 percent). The continuing entry into the job market by women, especially older women who have been raising a family, probably will require additional education and will create demands for new and expanded programs.

Another possible reason for the growing interest in adult education is that the proportion of the traditional college-age group that begins postsecondary studies has apparently leveled off; current projections indicate that by the early 1980s college enrollment will begin to diminish in absolute numbers. Increased attention paid to the adult in postsecondary education may in part be a result of a need of the postsecondary system to expand to other markets in the face of this diminishing demand by the traditional student.

In addition, the rate at which adults participate in education also has increased significantly over the past five to ten years. Surveys made in 1957, 1969, 1972, and 1975 for the National Center for Educational Statistics (NCES) by the Bureau of the Census show a substantial increase in adult participation in organized educational activities over these years. The total numbers estimated from these surveys are presented in Table 1 and are compared with the enrollment and participation rate for all of higher education for the same years. While regular full-time enrollment as a percentage of the 18- to 24-year-old population has leveled off (and between 1972 and 1975 actually declined), adults in larger and larger proportions have engaged in further education. Between 1957 and 1969, the average annual growth in the participation rate of the 18- to 24-year-old population was approximately 3.8 percent, while that for adults was about 2.8 percent. Between 1969 and 1972, however, the growth in the rate for the typical college-age cohort had slowed to only about 0.4 percent per year, while that for adults had grown to an average of 4.4 percent per year. Between 1972 and 1975, the participation rate actually declined by about 0.5 percent per year for the normal college-age cohort. During that period, adult participation continued to increase annually, although at a slower rate.

TABLE 1

Adults In Education

Year	Total Postsecondary Enrollments (thousands)	% of 18-24 Population	Adult Education Participants (thousands)	Adult Education % of Adult Population
1957	3,047	20.2	8,270	7.6
1969	7,484	31.5	13,041	10.0
1972	8,265	31.9	15,734	11.3
1975	8,665*	31.4	17,059	11.6

*Estimate
Source: NCES, *The Condition of Education*, 1976, and unpublished data from the 1975 survey of adult participation.

Adult participants counted in the figures in Table 1 are those who participated on a part-time basis. Adults had also increased their participation as full-time students. Between 1965 and 1972, the percentage of all enrollments in higher education of those in the age category 25 to 34 increased from 19.1 percent to 24.3 percent. In 1974, when data were first collected on the enrollments of those 35 years and older in higher education, some 33.3 percent were identified as over 25 years of age.

As a result of the expanding interest in adults and education, a wide range of proposals have been advanced for major public policy changes in the support and delivery of education to adults. These range from proposals for eliminating age discrimination in admissions requirements and student aid programs to proposals for income maintenance for an adult with a family while he or she is engaged in full-time study. The estimated cost of these proposals ranges from relatively little to many billions of dollars.

The arguments in support of the proposals rest upon a number of general propositions. These include:

1. Current participation patterns demonstrate that for certain subgroups within the adult population, barriers exist that inhibit participation in further education;

2. Current participation points to unmet educational needs of adults, which public programs should be designed to meet;

3. Demand for adult education programs will increase in the future for a number of reasons:

    a. the society will become more and more middle-aged;

    b. increasing amounts of leisure time will in turn lead to an increase in educational activities, and

    c. the increasing level of formal education also will lead to increases in adult education.

Those who have put forth proposals for substantial public subsidies to support mid-career sabbaticals and extended periods of study for adults argue further that:

4. Equity considerations require that those who in earlier life were prevented by lack of opportunity from obtaining an education for which they were qualified should be given an opportunity to compensate for that earlier lack;

5. As the population moves upward in career paths, our society will experience a "promotion squeeze" and job mobility will more typically be horizontal than vertical; several effects of this phenomenon will increase the need for expanded adult education:

    a. the numbers of those people in our society who will change careers in mid-life will increase substantially;

    b. increased limitations on fulfillment in the world of work will move people to seek fulfillment in other activities, including education;

    c. with competition for higher level positions growing more and more fierce, those who would move upward will need to keep themselves as well trained as their younger competitors;

d. for the younger worker competing for higher positions, the level of education and training will become increasingly critical as a criterion for promotion.

The purpose of this paper is to examine some of these assertions and to review some of the adult education programs and policy proposals now being discussed. The paper will include a review of the current nature of participation in adult education, an attempt to delineate its future dimensions, a description of existing and proposed policy initiatives, and an examination of the extent to which the public interest might be served by the proposals. It is hoped the contents will stimulate further discussion and debate about specific actions to be taken at the state and federal levels with regard to the adult and education.

II. THE ADULT IN EDUCATION

Introduction

Proposals for increased federal or state investments in adult education are in part based upon the analysis of current participation patterns and the issues and unique needs of subgroups which emerge from that analysis. This section will describe the current overall level of participation in adult education and will identify those factors which most strongly affect it. Trends in participation over time will be examined and target groups for proposed programs will be described. An Appendix provides further detail on the characteristics of the individuals involved and the institutions that provide the learning experiences.

Overall Level of Participation

Major surveys from which estimates for the total population can be drawn were done in 1957, 1962, 1969, 1972 (two surveys), and 1975. The 1957, 1969, one of the 1972, and the 1975 surveys all were done by the Bureau of the Census for the National Center for Education Statistics and represent the only reasonably comparable trend data available.[1] The 1962 survey was done by John W. C. Johnstone and colleagues at the National Opinion Research Center with funding from the Carnegie Corporation.[2] The other survey in 1972 was performed by the Educational Testing Service (ETS).[3]

Estimates of the total level of adult education activities at any given time will vary substantially with the definition of what constitutes a learning experience for an adult. The most comprehensive of these surveys is the one done in 1962 by Johnstone and colleagues. These researchers defined an educational experience to be any systematically organized activity consciously undertaken for the purpose of acquiring new information, knowledge, or skills. In contrast to other surveys, no restriction was put on the form of instruction. Thus, classes, lectures, workshops, private lessons, correspondence courses, and on-the-job training were all included in the definition used. Independent self-instruction was also included when it was a part of an organized program which the individual followed for a month or more.

Using this definition of adult education and a total sample of almost 12,000 households, Johnstone estimated that in 1962 some 25 million adults over the age of 25 were involved in some form of education. This represented about 22 percent of the eligible population. Within this number, 9 million adults are estimated to have been involved in self-instruction as defined above, 17 million were enrolled formally as part-time students, and 2.7 million as full-time students.

In 1972, Educational Testing Service surveyed 1,639 households for the level of current involvement and for interest in increasing involvement in education. If extrapolated to the total population, the results would suggest that some 32 million adults participated in further education (including self-instruction). The 1972 NCES survey of 50,000 households (a much more reliable sample) estimated that 15.7 million adults participated in educational activities in that year, excluding self-instruction.[4] The most recent NCES survey, performed in 1975, puts the total figure

for adults 17 years or older who are involved in further education or training on a part-time basis at 17 million, or 11.6 percent of the eligible population.

The institutional surveys of higher education institutions, public school systems, and community organizations provide a different, and again sometimes conflicting, perspective. For example, an NCES survey of adult education in institutions of higher education found over 6.5 million registrations (as distinct from individuals) in adult or continuing education programs in 1967-68.[5] The 1969 household survey yielded an estimated 3.3 million *individuals* in this category. Public schools in 1969-70 reported enrolling some 9.2 million individuals in adult education.[6] This figure is substantially higher than the 3.6 million estimate resulting from the household survey for 1969. In 1972, community organizations (churches, Y's, the Red Cross, civic groups, etc.) were surveyed on a sample basis to determine the level of adult education activities. A total of 11 million individuals were estimated to have participated in activities sponsored by these organizations.[7] In the household survey only 2 million participants are included in this category.

Despite the difficulties in relating the various data, the overall figures leave no doubt that there is substantial participation by adults in education, both formal and informal. In the following section, more detailed information will be presented on the major characteristics which seem to determine which individuals do and do not choose to participate in adult education. The NCES survey of 1975 is the primary source of data for the descriptions which follow, supplemented in some instances by the results of the Educational Testing Service survey. While these data probably understate the magnitudes involved, the pattern which emerges is not different from that of other surveys. Furthermore, it provides the most detailed and recent data available and is the only consistent source of trend information about adults in education.

The Strongest Factors

The strongest factors which correlate with participation in adult education are age, previous education, and income. The young, those who are already well-educated, and those with higher income levels will be found participating at much higher rates than others. Tables 2, 3, and 4 display data from the 1975 NCES survey of adult participation which support a number of observations.

Over the age of 25, the younger the age group the higher the likelihood of participation. As Table 2 indicates, the participation of the 25- to 34-year-old age group (25-34) was at about 20 percent. Participants aged 17 through 34 numbered some 9.6 million, or over *half* of all participants. After these two age groups, the participation level decreases rapidly. The rate for 55- to 64-year-olds, for example, is one-fourth of that for the 25- to 34-year-old group, and for 65 and over it is slightly more than one-tenth of the rate for the youngest group.

Those who have had more education participate much more heavily in adult education (Table 3). Those with less than a high school education who are not full-time students numbered approximately 48 million people in 1957. Out of that total group, slightly over 2 million, or only 4 percent, participated in an organized adult education program. In contrast, of the 18 million college graduates, 5 million, or 28 percent, participated in adult education.

Those who had higher incomes tended to participate at a much higher rate than those with lower incomes (Table 4). For example, for the group indicating a family income of $6,000 or less (numbering 30 million in 1975), only 6 percent, or 1.7 million, participated in adult education.

TABLE 2

Participation by Age Group: 1975

	Total Population (thousands)	Participants* (thousands)	Participation Rate (percent)
17-24	30,104	3,448	11.5
25-34	29,934	6,156	20.6
35-44	22,328	3,348	15.0
45-54	23,543	2,481	10.5
55-64	19,499	1,129	5.8
65+	21,194	498	2.3
Totals	146,602	17,059	11.6

*Excludes full-time students, totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE 3

Participation by Previous Education: 1972

Highest Completed	Total Population (thousands)	Participants* (thousands)	Participation Rate (percent)
None to 8 Years	26,465	530	2.0
Some High School	26,923	1,226	4.6
High School	53,755	6,396	11.9
Some College	21,002	3,687	17.6
College	11,464	3,095	27.0
Postgraduate	6,993	2,125	30.4
Totals	146,602	17,059	11.6

*Excludes full-time students.
Source: NCES survey, 1975.

TABLE 4

Participation by Income Level: 1975

Family Income (dollars)	Total Population (thousands)	Participants* (thousands)	Participation Rate (percent)
0-3,000	10,472	456	4.4
3,000-5,999	19,980	1,240	6.2
6,000-9,999	24,439	2,575	10.5
10,000-14,999	33,198	4,294	12.9
15,000-24,999	34,118	5,408	15.9
25,000+	13,408	2,372	17.7
Not reported	10,987	714	6.5
Totals	146,602	17,059	11.6

*Excludes full-time students, totals may not add due to rounding.
Source: NCES survey, 1975.

At higher levels, $15,000 and above, some 16 percent of the 48 million potential participants did in fact participate.

It might be expected that among those participants at a lower education and income level, a much greater proportion would be taking courses which are job or career related. In fact, the difference is in the opposite direction. Among those participants with less than a high school education, about 40 percent took job-related courses. In the group with a college degree or more, 56 percent took job-related courses.

Changes in Participation Over Time

As indicated in the Introduction, adult participation in education has been steadily increasing over the period of time in which comparable data have been collected. Table 5 presents data from the four NCES surveys on the total adult population, the number of participants, and the participation rate. As the table shows, both the total number of participants and the rate of participation have been increasing steadily over the period of time comparable data have been collected. However, this increase slowed significantly between the last two surveys. Between 1969 and 1972, the eligible adult population grew by 6.6 percent, and the number of participants increased by a very large 20.7 percent. However, between 1972 and 1975, the adult population grew by 5.4 percent and the number of participants by only 8.4 percent. This change represents a very significant slowdown in growth in participation. Between 1972 and 1975, the *rate* of participation increased by less than one-fourth the amount experienced between 1969 and 1972.

A review of the data contained in the three NCES surveys also shows that the strong relationship of age, education, and income to participation has held over time, though with some interesting shifts (Tables A-9, A-10, and A-11). Between 1969 and 1972, the participation rates of all age cohorts increased, though the relative amount of increase was greatest for the older age groups,

TABLE 5

Changes Over Time: Adult Population, Participants, and Participation Rates: 1957, 1969, 1972, 1975

	Eligible Adult Population (thousands)	Participants in Adult Education (thousands)	Participation Rate (percent)
1957	108,363	8,270	7.6
1969	130,251	13,041	10.0
1972	138,865	15,734	11.3
1975	146,602	17,059	11.6

Source: NCES surveys. The participation rate is the percentage the second column is of the third. The 1957 data are not strictly comparable and are given only as a reference.

that is, for those groups with the lowest level of participation. The only exception to this general pattern was the 17-to 24-year-old cohort whose increase between 1969 and 1972 was relatively large (from 10.5 percent to 12.2 percent). This can be explained partially by shifts in college-going patterns occasioned by the elimination of the draft and other changes in society. In that age cohort, in 1969, some 41 percent were full-time students. The increasing average age of the full-time college student over that same period suggests that large numbers of students who did not attend college immediately after high school have since drifted back to attend on a full-time or part-time basis. Those slightly older than average "returnees" who participate part-time would be counted in the adult participation survey in this youngest cohort and probably are the cause for the disproportionate rise in the participation rate of that group.

Between 1972 and 1975, a similar pattern of growth was experienced, though at a much slower rate and with the 17- to 24-year-old cohort again providing an exception. In this three-year period, the rate of participation by this youngest age cohort actually declined from 12.2 percent in 1972 to 11.5 percent in 1975. Again, shifts in college attendance patterns by this group appear to be responsible for the difference.

While the age relationship to participation has weakened slightly over time, the relationship to the level of previous education has in general grown stronger. The largest increases in participation rates have been for those without a high school or college diploma. The relative slowdown for the college graduate parallels the softening of full-time college enrollments. For income, between 1969 and 1972, participation increased the greatest amount for the two lowest income groups. In the next three-year period, participation by those two groups *decreased* significantly. Although it may be a coincidence, the rate of increase of the cost of living was *least* for the year preceding the 1972 survey and *greatest* before the 1975 survey.[8] It is tempting (and logical) to conclude that the demand for adult education on the part of those with low incomes is strongly dependent on the costs of competing goods.

Special Target Groups

The data describing participation pinpoint some potential target groups within the total adult population whose relative participation is significantly below average. These groups (along with the basic target groups for recurrent education proposals) include the following:

1. individuals who have less than a high school diploma
2. the unemployed, particularly the young
3. female heads of household
4. the elderly
5. middle-aged career changers

Groups that exhibit lower participation rates than the general population do not necessarily become a concern for public policy. However, such groups deserve a more careful examination of the reasons for the lower rate of participation, other characteristics of the group, and the extent to which an increase in participation in education would represent a social good. Our society has long had a commitment to providing educational experiences up to the basic levels of literacy represented by a high school diploma. Yet large numbers of our current population have not attained that level. In 1974, 14 million Americans over the age of 25 had not even completed eight years of schooling. Six million individuals who were between the ages of 25 and 34, with a substantial portion of their working life ahead of them, had no high school diploma. An additional 15 million were between the ages of 35 and 54.[9]

The unemployed, particularly within certain subgroups of the population, represent another group with a potential need for further education. In 1975, the average unemployment rate for all workers was 8.5 percent. Those aged 16 to 19 in the work force, however, had a disproportionately high rate of unemployment of almost 15 percent. Three-quarters of those unemployed individuals were male and the unemployment rate among teen-aged blacks approached 40 percent. For the young, particularly those with lower levels of education, some education and training are available through federal manpower programs. Yet the coverage provided by these programs is generally spotty or focused on relatively narrow target groups.

Adult women may represent another segment of the population with special needs in education. As mentioned, the past decades have seen a continual increase in the proportion of the female population entering the labor market. The participation data suggest that adult education is an important factor to these women, particularly for those around age 35 who wish to reenter the employment market. A large proportion of women who enter the labor force is either single, widowed, divorced or separated, or has a husband with an income below $3,000 per year. The disparity in income which women suffer relative to men is less at higher levels of education, suggesting a positive economic benefit in additional education for women.

Those women who are heads of households (7.2 million in 1975) are another group whose needs for further education are substantial. As mentioned above, they have a relatively high participation rate in adult education as well as other characteristics that set them off from the general population. Their employment status is, like some other groups, more sensitive to the general state of the economy than the average population. For example, in 1975, female heads of households who were in the labor force had an unemployment rate several percentage points higher than that for the general population.

Because of very low participation rates in adult education, the elderly are often identified as a target group for programs intended to stimulate increases in participation. Current participation by those 55 and over is much more heavily oriented toward community issues and recreational courses than it is for younger groups. Yet the basic education needs of this age group are also large: some 23 million have not received a high school diploma. The policy question, however, is the level of priority for meeting these needs in comparison to those of other subgroups.

Another important potential target group is the middle-aged who are dissatisfied with or blocked in their career choices and who require further education or training to make a substantial job change. Large-scale recurrent education proposals grow out of a concern for meeting the needs of this group. Survey data support the observations by many (O'Toole, Wirtz, etc.) that job satisfaction in our society is not high.[10] In a 1974 survey of members of the labor force, some 40 percent of workers surveyed claim to have given serious thought to changing jobs.[11] Extrapolated to the total working population in 1974, this would have amounted to 36 million restless employees.

How much of this dissatisfaction translates into a genuine demand for further education is uncertain. In the 1975 NCES survey, about 2 million participants gave the obtaining of a new job as their primary reason for enrolling. About one-half million of those participants were between the ages of 35 and 54. Further analysis of the ETS data by Pascal and his colleagues places the number in that age group either interested in or engaged in a job change at about 16 million.[12] Unfortunately, the available data do not define the size and characteristics of this group with much more precision.

Conclusion

The younger, the already well-educated, and those with higher incomes are currently most heavily involved in adult education. However, specific subgroups of the adult population apparently have both higher than average needs for further education and lower than average levels of current involvement. It may well be in the public interest to provide support or incentives to stimulate increased participation by those groups. Yet if public support is provided in a general form without deliberate targeting toward specific needs, the benefits of that support are likely (at least on the margin) not to benefit those with the greatest needs. It is possible that public dollars would be substituted for private dollars and participation by those who could most easily afford it would increase the most.

III. FUTURE PARTICIPATION IN ADULT EDUCATION

Introduction

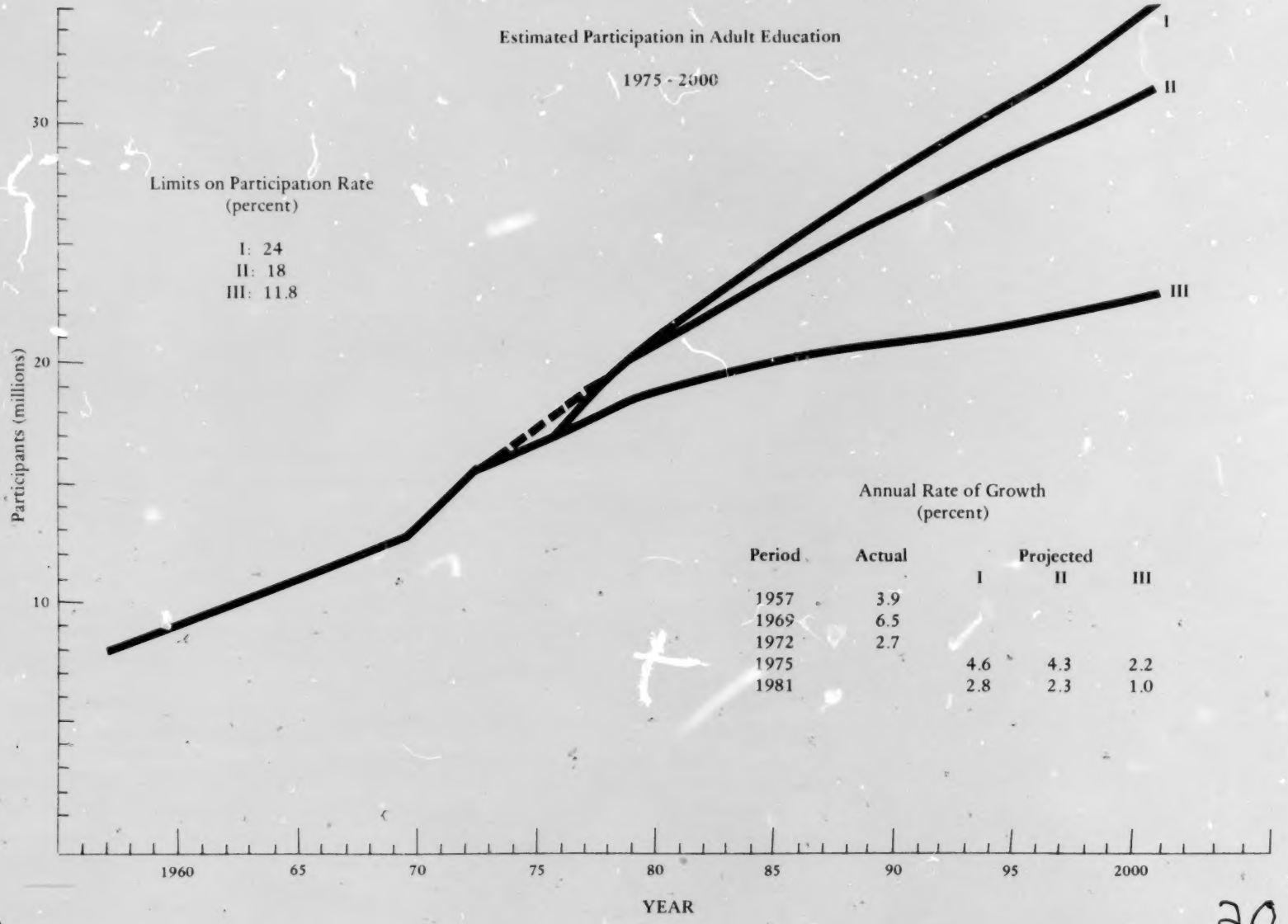
A theme often found in the burgeoning literature on the adult in education is that the next several decades will see the continuing rapid expansion of adult participation in all forms of education. Participation probably will increase because the adult population will continue to increase in absolute size through the end of the century. Based on this fact, many are heralding the age of the flowering of adult education. But is this the case? Are there reasonable assumptions regarding the behavior of adults toward further education that might challenge this prediction?

To answer these questions, more than a simple examination of the increasing median age of the population is needed. The participation survey data discussed in the previous section suggest that there are factors more powerful than merely being an adult which influence participation in adult education—these are age, previous education, and income. An understanding of the composition of the total adult group and its change over time along these dimensions is an important factor in any estimate of future levels of participation. The age factor alone might suggest, for example, that the increase in participation will slow down substantially as the prime participating age group diminishes in size toward the end of the century. The stabilization or possible regression in educational attainment of the adult population which is suggested by Freeman and others may have a similar dampening effect on the basic upward trend of the demographic data.[1]

Unfortunately, the lack of available data puts a severe limit on any analysis that could be done in this area. "Projections" must of necessity be more descriptive than definitive, since there are far too few tested and validated hypotheses on which to base them. Truly comparable trend data are available only from the 1969, 1972, and 1975 National Center for Educational Statistics surveys—rather scanty raw material for the development of a powerful predictive model.[2] The analysis of current "demand" for adult participation and projection of future "demand" is almost an impossible task at present, if that term is taken in its literal economic sense. If "demand" is seen as the number of buyers for a given commodity at a given price, the analysis cannot now be done for adult education in the aggregate. Manageable, related data about costs, programs, and participants with which to develop estimates of elasticity of demand are simply not available.[3] Yet in spite of the lack of data and the many problems in developing models with strong predictive powers, some sense of the potential level of future participation can be quite useful in judging the impact of any policy initiative, particularly those which include major support for lifelong learning or recurrent education.

In this section, several estimates of future participation in adult education will be presented. These estimates should be considered with two caveats clearly in mind. First, they represent extrapolations of present trends rather than theory-based predictions of future behavior. Their usefulness will depend on an explicit awareness of the assumptions which underlie them and the understanding that they represent simply the extension of those assumptions into the future. Second, the estimates are of aggregated participation and cannot be applied directly to specific subgroups of the adult population. For example, participation by minorities has increased more rapidly than has the total population as the average level of educational attainment of that group increased over the

FIGURE 1



Annual Rate of Growth
(percent)

Period	Actual	Projected		
		I	II	III
1957	3.9			
1969	6.5			
1972	2.7			
1975		4.6	4.3	2.2
1981		2.8	2.3	1.0

last decade. If the second of these trends endures (and current data show that it is continuing), the first also will be likely to do so, whatever the behavior of total adult participation rates.

Projections Based on Total Participation Rates

Figure 1 presents estimates of the number of adults who will participate in adult education between 1975 and the year 2000. These estimates have been derived through the application of the trend-demographic projection technique to the participation rates for the total adult population.[4] The critical assumption in this technique is the choice of the upper limit on the participation rate. The growth pattern of the participation rate found in the NCES data suggests that it is approaching an upper limit on participation of about 12 percent of the adult population.[5] This is very close to the current rate of 11.6 percent, but, as will be discussed later, does not seem to be the best choice when other factors are considered. For this reason, several alternate projections are given in the figure. Case I places a comfortably high limit on the participation rate, 24 percent (more than double the 1975 rate). Case II uses a limit of 18 percent, and Case III uses the analytically suggested limit of 11.8 percent. The table in the chart gives the average annual compounded rate of growth in total participation between surveys and as projected for each of the three cases for the periods 1975-81 and 1981-90.

These projections represent a combination of two factors: changes in the total number of adults, and changes in the rate at which adults participate in education. It is helpful to consider each of these in turn.

The rate of growth of the adult population up through the early 1970s increased annually, peaking between 1970 and 1971 with an annual increase of 1.7 percent. From the early 1970s to the early 1990s, the rate of growth is expected to diminish each year to an annual increase in 1992 of 0.6 percent. The rate will then begin to increase slightly each year through the rest of the century, the precise increases being determined by birth rates over the next seven to ten years.

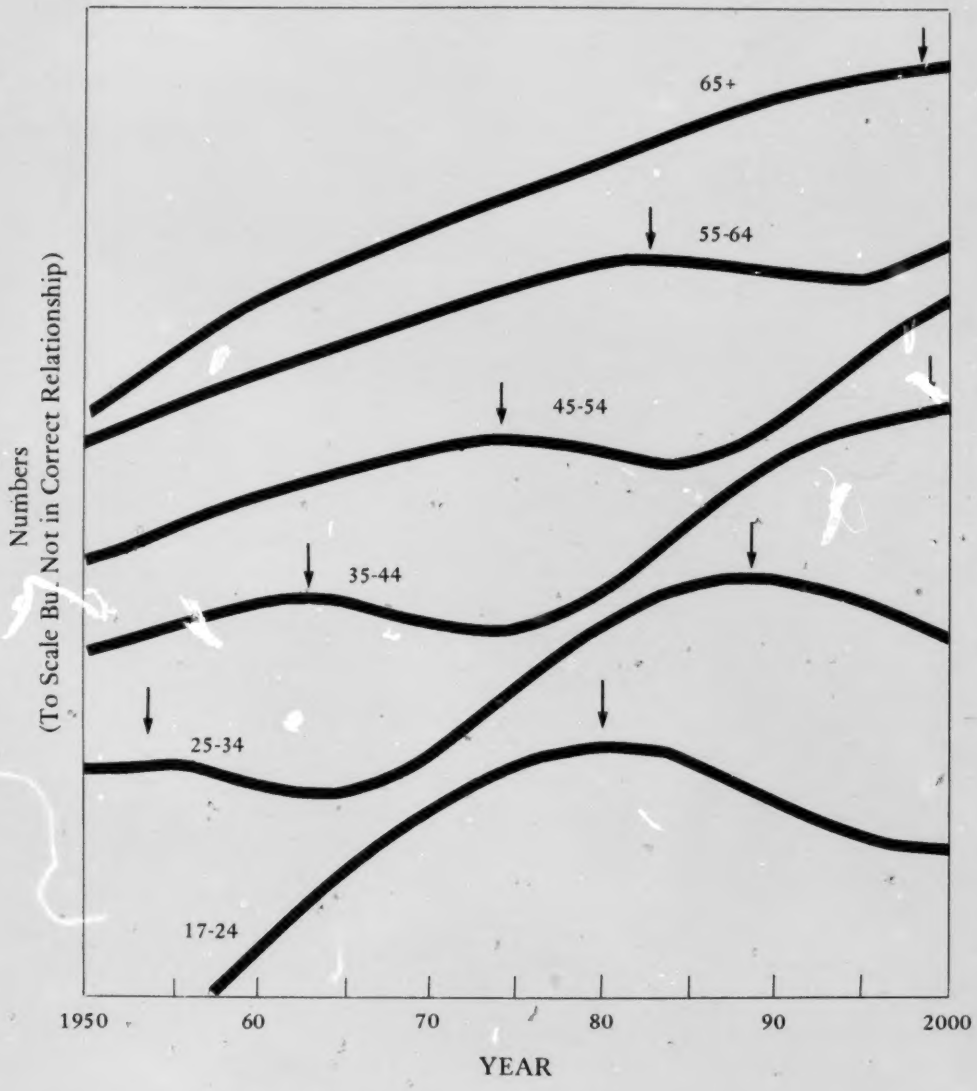
The rapid growth of the adult population in the 1960s was the result of the postwar baby boom and the continuing high fertility rates of the 1950s. The subsequent slowing of the growth of the adult cohort in the 1970s and 1980s is in turn the effect of a decline in the total fertility rate, from a high in 1957 of 3,800 to a 1975 level of 1,800, the lowest in history.[6] By around 1980 the last of the baby boom cohort will have been absorbed into the adult population and the lowered birth rates of the 1960s will be in full force. From then to the end of the century, the growth rate will be relatively slow.

An important implication of these figures is that if participation rates were to remain constant (as they almost have between 1972 and 1975), the rapid growth in adult education experienced between 1969 and 1972 would decidedly be over. In Figure 1, curve III uses an upper limit on participation rates of 11.75 percent. Since this is so close to the 1975 rate, the curve closely approximates one with a uniformly constant participation rate and thus principally shows the effect of the underlying growth of the adult population. For this projection, increases in the number of adults in education will slow to a level of 1.2 percent per year by 1981, then will settle to a relatively constant 0.9 percent per year until the early 1990s. This rate would be substantially less than the 6.5 percent annual growth experienced between 1969 and 1972. Therefore, to the extent that the underlying demographics dominate, adult participation in formal education has passed its period of rapid growth.

FIGURE 2

Estimated and Projected Growth

of Age Cohorts: 1950 - 2000



Source: U. S. Bureau of the Census, P-25, no. 601.

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The examination of changes in the total adult population also suggests that the large increase in the number of adult participants between 1969 and 1972 may have been an anomaly. In that three-year period, the number of participants grew from 13 million to 15.7 million, an increase of 2.7 million or a substantial 21 percent. Fortuitously, that three-year period saw peaks in both the rate of growth of the adult population and in the rate at which adults participate in education. An equivalent three-year increase in the size of the adult population will not occur again in this century. Similarly, there are also reasons to question whether the participation rate is likely to increase again so rapidly. The average annual increase in the rate between 1969 and 1972 was twice that experienced between 1957 and 1969, and over four and one-half times that between 1972 and 1975.

For the two cases with the higher assumed limits (I and II), growth in participation would continue to increase at a more rapid rate than between 1972 and 1975, but more slowly than the 1969 to 1972 rate. Between 1975 and 1981, curve I (maximum assumed rate of 24 percent) would grow by almost 5 percent per year and curve II (maximum of 18 percent) by slightly over 4 percent per year. Beyond 1981, up through 1990, both curves project an increase at a slower and slower rate. In that period, curve I has a growth rate of 2.8 percent per year and curve II a rate of 2.3 percent per year. The slowdown after 1981 is the combined effect of the slowdown in the growth of the adult population mentioned above and the approach by the rate of participation more and more closely to its assumed limit.

Even optimistic assumptions about growth in participation (an upper limit double the current participation rate) do not lead to a continuation of the rapid expansion of demand for adult education which was experienced in the late 1960s and early 1970s. The underlying demographic factors remain dominant. To continue the 1969 to 1972 rate of growth would require that participation by adults (as defined in the NCES survey) climb from 11.6 percent of the eligible population in 1975 to about 15 percent in 1981 and 25 percent in 1990.

Projections Based on Age and Previous Education

The projections just presented deal with the participation rate for the total adult population. As discussed earlier, the strong relationship of participation to both age and previous education should be considered in making estimates of future levels of participation. Age in particular is an important factor, since the structure of the total adult population relative to this variable will shift significantly during the rest of the century.

Figure 2 is a plot by appropriate age groups of projections of future population developed by the Bureau of the Census.[7] Each of the curves is drawn to the same scale but not in correct position relative to one another. The three arrows to the lower right point to the bulge in population for each successive age group created by the large increase in birth rates in the 1950s. The arrows to the middle left identify the peaks in population due to the offspring of that group. Note that the 17- to 24-year-old age group peaks in approximately 1980, and the second oldest subgroup, those 25 to 34, peaks in the late 1980s.

Since these groups participate in adult education at the highest rate of any of the age groups, several effects on the aggregate projections can be expected when the analysis takes subgroups by age into account. First, the rate of growth up through about 1985 probably will be slightly higher than expected as large numbers of individuals enter these two high-participating age cohorts. Second, the slowdown in growth which will follow the mid-1980s will be slightly more pronounced

as large groups leave these age cohorts and are replaced by smaller groups. Calculations confirm this analysis of the impact of age subgroups on estimates of future participation. Taking age subgroups into account will only shift the curves in Figure 1 by a small amount in the directions suggested.

A further refinement in these projections could be brought about by separating the total adult population into components based on the level of previous education. This refinement could possibly be more reliable, but it introduces additional complications. Projections of the education level of attainment of the population over the next several decades vary widely from one analyst to another.[8] However, as an illustration, an estimate was made utilizing Carnegie Commission projections of the educational composition of the adult population in the years 1980, 1990, and 2000.[9] The result is a curve which is slightly lower than curve II of Figure 1 and which grows toward a maximum participation rate of about 17.5 percent. The curve predicts an annual growth rate in the number of participants between 1975 and 1981 of 4.3 percent, and 2.1 percent between 1981 and 1990.

Because of the powerful relationship between educational level and further participation as an adult, it is tempting to conclude that this projection is the most likely one of the several discussed. Some caution is in order, however. The experience of recent years has proven Carnegie Commission (and National Center for Educational Statistics) enrollment projections to be rather optimistic, at least in the short term. If the changes in our society responsible for recent alterations in college enrollment patterns endure, as some analysts suggest, actual enrollments could remain below expectations. The implications for the present discussion are apparent: Case II may also turn out to be an optimistic upper limit on anticipated levels of participation by adults.

Will Participation Rates Continue to Increase?

The judgment of likely levels of future demand by adults for education (assuming no significant policy changes) is dependent upon an understanding of shifts in participation rates. What factors cause such shifts? Are there future conditions in which participation rates could actually decline? Once again the refrain is repeated: the data are too scanty and confusing to lead to a firm conclusion one way or the other. Yet there are some relatively reasonable hypotheses and resulting analyses that lend support to the conclusion that the rate of participation by adults in education may be leveling off or may even eventually decline.

The substantial slowdown in the growth of participation indicated by the latest survey cannot be ignored. As discussed in the previous section, growth was very much slower between 1972 and 1975 than before that period. Is the participation rate of 1975 an anomaly or is it the beginning of a long-term leveling off in participation rates? One recent study gives support—for at least a small subgroup within the adult student population—to the latter interpretation.[10] In that study, John Bishop and Jane VanDyk identify the G. I. Bill, the availability of a two-year college, and the level of tuition as the key factors that have affected adult enrollment (part-time or full-time) in a college degree program. Recent changes in the G. I. Bill and reductions in the number eligible for it, the very limited prospect of the establishment of new colleges, and the greater likelihood of tuition increases than decreases could all act as future depressants on adult participation in education.

If the changes in the factors which created rapid growth in adult education early in the 1970s point to a possible slowdown in that growth, there are recent analyses which suggest that the level of education of the adult population might actually decline over the next several decades.[11] This could, in turn, lead to a decline in participation by adults. In a number of articles and a recent

book, Richard Freeman demonstrates that the rate of return to an investment in a college degree declined from a high of between 11 and 12 percent in the early 1960s to about 8 percent in the early 1970s and is continuing downward. He sees a causal relationship between declining rates of return combined with more limited job opportunities for the college educated and declines in college enrollments. His resulting analysis of changing market conditions results in a forecast of a continuing decline in enrollment ratios for the college-age population as the payoff for going to college diminishes further.

In a similar vein, Stephen Dresch has explored the interaction of demand for education, the relative wages of the educated and "uneducated" (noncollege graduates) portions of the population, and the underlying demographics. In his view, during the postwar period the combination of a small population base and the vastly increased demands of a growing economy generated substantial increases in the rate at which the eligible population attended college. The higher college attendance rates which were established by that unique combination of events carried forward up into the early 1970s when the large numbers produced by the baby boom were in college. The result was a large and growing oversupply of college-educated workers. One effect of the oversupply is the significant lessening of the differential in starting salaries and total lifetime income between the college and noncollege educated as described by Freeman. This in turn has produced the downward trend in enrollment ratios for the college-age population, which in Dresch's view will continue for some years into the future, eventually reversing itself again and creating another period of undersupply.

Applying Dresch's model to the projection of college enrollments, a very different alternative future for higher education than envisioned by many analysts emerges. An increase in degree-credit enrollment of about 40 percent is forecast over the decade of 1970-80, roughly consistent with NCES and Carnegie Commission projections. After 1980, however, the projections become much less optimistic, with a projected 40 percent contraction between 1980 and 1990 and a further contraction of 12 percent in the final decade of the century. This contrasts with the Carnegie projection of a contraction of 8 percent in the 1980s and an increase of 26 percent in the 1990s.

Is the shifting relative advantage of a college education liable to have a similar impact on demand for adult education? It may, given the large proportion of participants who give job advancement or change (54 percent) as their primary reason for further education and the large proportion who in fact take occupation-related courses. Theoretically, adult participation might be more sensitive to shifts in the labor market, since the part-time learner who is employed can withdraw from student status more rapidly than the full-time undergraduate.

Reasonable as this argument may appear, the currently available data do not seem to support it. In fact, the rapid growth in adult participation between 1969 and 1972 (at about the same time traditional full-time enrollment was softening) supports arguments to the contrary. This observed countertrend could be no more nor less than appearances, namely, a real and enduring change in the education habits of adults. That interpretation is supported by the fact that the increase in participation has been greatest on a proportional basis for the older age groups, and not just a result of a shift to part-time attendance by the college-age population.

Even if there were no direct impact of labor market conditions on adult education, there could be the possibility of second order effects. Dresch predicts a downward shift in the portion of the 21-year-old age group that earns college degrees from roughly 33 percent in 1980 to 18 percent by the year 2000. How might this shift affect adult participation? It is difficult to say. A decline in college attendance by the young could lead to *increases* in adult participation as individuals return in later life to undertake or finish their college education. On the other hand, the relationship of

previous education to participation in adult education could hold, leading to the possibility that adult enrollments would experience an absolute decline toward the end of the century.

Latent Demand for Adult Education

These estimates have assumed no changes in other factors, such as increases in scholarship support for adults, the enactment of a recurrent education program by the U. S. Congress, changes in institutional structures, and so on. There is the possibility, if not the likelihood, that there will be changes, particularly if proposals for recurrent education or lifelong learning and fo. expanded public support are acted upon. If significant changes in public policy take place, concern will shift to the question of the extent of latent "demands" or "needs" for adult education which will be awakened by these new programs. How large is the latent demand? As discussed in the previous section, if the ETS survey is used as the projection base, the total latent demand amounts to several times actual participation, or a potential of some 80 million adults. Using the more conservatively based figures of the Bureau of the Census survey, the total latent demand amounts to some 35 million individuals. Demand for education motivated by a desire to change careers could amount to some 2 to 10 million persons in the total adult population.

How reliable are such estimates of demand? It is difficult to judge. In the survey made by ETS, "interest in further learning" is not chosen in the context of alternative goods competing for scarce resources, but in the abstract. To state an interest in further learning becomes much more a statement of virtue and presumed intellectual alertness than a prediction of real future behavior. "Wants" are not necessarily "needs" and needs do not necessarily transform themselves undiminished into genuine "demand" in the economic sense. Translating numbers such as those just stated from the realm of wants to genuine hard demand is simply impossible with the data available. From a policy point of view, the general nature and rough magnitude of "need" is about as much as can be specified at this time.

Conclusions

Based on these considerations, what is the likely future for adult participation in education? As stated earlier, it is difficult to draw firm conclusions based on the data avilable. Nevertheless, admitting the prominent role played by value judgments in the analysis of future participation or demand and assuming that exogenous factors are held constant, several tentative conclusions can be made:

1. In all but the most optimistic of cases, adult participation is likely to increase at a slower rate of growth between now and 1980 than it did in the early years of this decade. The basic reason for this is the slowing of the growth of the eligible adult population.

2. In all cases examined, between 1980 and 1985 (either coinciding with or lagging somewhat behind the impact of the shrinking of the college-age cohort on enrollment in higher education) the rate of growth is projected to slow even further, again for demographic reasons.

3. There are factors that could so affect the perceived value of further education that they could lead to an actual reduction in adult participation rates after 1980.

Beyond the conclusion that the rapid growth period for adult education is over lies another question: To what extent will the growth which takes place be the result of substitution rather than real growth? The growth in adult education between now and the mid-1980s possibly could be made up of two major components. One component is quite likely to be real growth generated by the very slight increase in the total eligible population just mentioned in the first conclusion. However, a second element of growth may come from a shift in college-going habits which results in a significant portion of the traditional college-age cohort delaying its participation in higher education until later years and then participating on a part-time, in-and-out basis. It is possible—but difficult to determine precisely at present—that much of the "increase" in adult education may be a substitution of growth in adult education for traditional attendance with a corresponding decline in enrollments by regular full-time students. If this turns out to be the case, the impact on the programs and finances of postsecondary institutions could be substantial.

IV. PROGRAM AND POLICY PROPOSALS

Introduction

The public sector currently provides a substantial subsidy to the education of adults. At the federal level alone, it is estimated that in 1972 some $2.6 billion dollars were appropriated in support of further education or training for adults. Proposals for new programs and public policies to respond to the unmet needs of adults in education range in additional cost from the nearly negligible to many billions of dollars per year. In substance, they are as diverse as the perceptions of those needs and the institutions which serve them. For the purposes of discussion, these proposals, as well as ongoing developmental activities, can be grouped roughly in the following categories:

1. The development of instructional materials and methods;
2. The development and provision of facilitating services;
3. The removal of obstacles to further adult participation (other than cost);
4. Major funding proposals including subsidies, entitlements, and loans; and
5. A special case of financial support—the creation of tax incentives.

In this section, the extent of the existing public investment in the education of adults will be described and some of the proposals now being considered will be discussed.

The Public Subsidy

In its seventh annual report, the National Advisory Council on Extension and Continuing Education presented the results of a review of all related federal programs.[1] The Council identified some 208 federal programs which in fiscal 1972 supported continuing education to some extent. The total appropriation for these programs was $8.2 billion, $2.6 billion of which was estimated to have been directed toward education programs for adults. This total includes education benefits to veterans under the G. I. Bill of $1.37 billion, institutional training programs funded at $372 million under the Manpower Development and Training Act (MTDA) of 1962, $173 million to the Cooperative Extension program of the Department of Agriculture, and U. S. Office of Education support for state programs in adult basic education of $50 million. The amount represented by these federal programs is a relatively sizeable portion of the $83 billion education expenditures for that year.

Training programs sponsored by the federal government for its own employees add a further dimension to the total federal investment. In 1972 almost 1 million employees of the federal government participated in some training activity at a total direct cost to the government of some $200 million. The indirect cost of salaries during the training period was estimated to be approximately $2 billion per year.

At the state and local levels, there is an additional substantial investment in adult education, much of it through direct support of ongoing activities of public school systems, universities, and colleges. It is estimated that in 1972 some $623 million was spent by colleges and universities on extension activities. Because of the nature of funding mechanisms, it is difficult to estimate the portion of the $54 billion expended by public elementary and secondary education that went to the support of continuing and adult programs. State and local support across the nation for adult basic education programs in 1972 has been estimated at almost $17 million. The total public investment at all levels probably exceeds $3.5 billion per year.

The Effectiveness of Programs for Adults

While the estimate of the total current public investment in adult education is probably roughly correct, a general statement about the total benefits of that support is impossible to make. The usual problems of identifying and valuing on a comparable basis the multiple and sometimes subjective outcomes of education programs become even more complex when dealing with the vast collection of programs that are gathered under the rubric of adult education.[2] The most extensive results are available in cost benefit studies of the MDTA programs. This is because the actual costs of such programs are readily available, as is information on the prior employment and income status of the participants. In addition, the basic objective of such programs—the eventual employment of the participants—is easy to measure. Using this criterion, the evidence of a number of studies shows a relatively high success rate for such programs: an average of almost 80 percent of all participants are found to be employed six months or more after the completion of the training. The evaluations also provide another interesting insight for the discussion about recurrent education programs. When comparing institutional and on-the-job training programs, the on-the-job training programs are found to be substantially more cost beneficial; the dropout rate is less for on-the-job training, there are higher rates of employment after completion, and the costs of the program are less. Relatively speaking, short intensive programs had higher payoffs than longer programs (but only partly as a result of lower foregone income).[3]

Extensive cost data also are collected on adult basic education programs and once again the measure of success—the completion of years of basic education—is easy to document. In fiscal 1972, over 820,000 adults participated in programs of elementary- or secondary-level instruction supported by federal, state, and local dollars. The average direct cost was only $81 per participant. In that year, some 73,000 individuals completed eighth grade, and almost 70,000 either passed the General Education Development (GED) test or received a high school diploma.[4] Direct costs for these programs are low because of the extensive use of existing facilities.

These basic education programs deal with the unemployed (or severely underemployed) individual (MDTA) or individuals seeking a minimal level of education. Unfortunately, there is little evidence available to assess the experience of individuals who leave the employment market after an extended period in the work force in order to return to education on a full-time basis. Similarly, little is known about those who make a substantial shift in careers at middle age.

A review of studies of mid-career shifts was made by Pascal and his colleagues.[5] Only a few were identified and these were relatively narrowly based. One survey looked at 40 professionals and businessmen who, at an average age of 42, changed careers as well as general life styles. As a group, they fell from an average annual salary of $15,000 to $4,000. A survey conducted by Dyer of involuntary career changers in white-collar occupations in the Los Angeles area found a change in

mean salary from $18,000 to $15,900.[6] No studies were found that focused on the impact of career changing or substantial additional education on blue-collar workers.

It is difficult to generalize from this data. For the white-collar worker who voluntarily changes careers, increased income or status may not be the objective. In fact, a decrease in both may be consciously accepted as a cost of the change. The Los Angeles study, however, supports the hypothesis that a decrease in salary may occur with a career change imposed by labor market conditions. For the white-collar or professional worker, the usual shift may be to a different but similarly structured career track with entry at a lower *initial* level, resulting in a decline in initial income. Hypothetically, the blue-collar worker who shifts (particularly when that shift is occasioned by substantial additional education) may shift to a career track with a higher salary structure than his initial one. His income and status might then be more likely to show an initial increase. For other groups—such as housewives and mothers attempting to enter the labor market at an older age—education may be a critical factor in achieving *any* success.

Further insight into these questions would be extraordinarily valuable, since many of the proposals for recurrent education include repayment schemes based upon assumptions of an increased future income. Actual results significantly contrary to this basic assumption could lead to serious funding problems.

Proposals: Materials Development and Facilitating Services

Table 6 lists a number of examples of ongoing projects whose purpose is either the development of instructional materials for adults or nontraditional learners or the design and operation of services aimed at facilitating the reentry of the adult into education. The success of such major experiments as the British Open Learning University has led to widespread activity in this country in developing courses specifically directed to the nontraditional off-campus student, to the development of new techniques of instruction (such as newspaper courses, television, etc.), and to the development of mechanisms for assessing the level of competence gained by adult learners.

One major materials development project in this country is an NIE-funded project located at the University of Mid-America, an open university-type institution created by a group of public midwestern universities.[7] In addition to this regional effort, a large number of states have in the past several years followed the lead of the Board of Regents of the State of New York in creating external degree programs. New York's efforts in this direction are now extending toward the development of learning experience assessment procedures that will allow a more systematic evaluation of the traditional credit value of work.

The experiences in Great Britain and such efforts in this country as *The Ascent of Man*, *Civilization*, and courses by newspaper suggest that public response to new learning opportunities provided through the media can be substantial. The costs for the development of a comprehensive system of materials for adult off-campus learning, though, are high (it is estimated at approximately $60 million).[8] However, that sum would represent a small fraction of the current federal subsidy to adult education and a minuscule increment to current total expenditures for postsecondary education.

Facilitating services are those which provide counseling, information, or guidance to the adult; they provide him or her with assistance in dealing with a multitude of institutions, a diversity of offerings, and the entanglements of red tape which probably will be encountered in an attempt

TABLE 6

Development of Instructional Materials
and Methods, Assessment Procedures

University of Mid-America: development of multimedia courses, instructional packages, etc.

Long Island University: Weekend College

New York State: external degree program, development of learning experience assessment procedures, etc.

Development and Provision
of Facilitating Services
(counseling, information, guidance, brokering)

Massachusetts Regional Education Opportunity Centers

Computerized Vocational Information System (CIVIS)

Oregon Career Information System (OCIS)

Learning Exchange, Evanston, Illinois

System of Interactive Guidance and Information (SIGI), ETS

Regional Learning Service, New York

Occupational Information System Projects, U. S. Department of Labor

INQUIRY Centers, Illinois

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to seriously pursue further education. These services range from the relatively inexpensive collection and provision of information on available educational opportunities to very expensive computerized counseling and information systems.

An example of the less complicated information service is the Learning Exchange in Evanston, Illinois. This center has developed and continues to expand an index of learning resources in the community which identifies individuals who wish to teach specific topics. The list is divided into areas of interest and is available free of charge.

At the other extreme in counseling and information systems, designs have been developed under funding from the Department of Health, Education and Welfare (DHEW) for highly computerized systems which will provide counseling on individual strengths, preferences, and qualifications, on career and job choice, and even training in how to go about making such a choice. These systems include information on employment availability and pay levels for specific job

clusters in a given geographical area, as well as education or apprenticeship requirements for entry into that career path. Information also is included in the system on the location of appropriate education or training programs and the availability of such support services as financial aid and child care. A number of the projects listed in Table 6 are now actually operating elements of such information systems.

The Department of Labor has recently funded ten states to develop manpower and labor market information systems to serve individuals. While focused on labor market information, the terms of the grant are such that many agencies within each state (including the department of education) are required to work together in developing the information system. The Syracuse Regional Learning Service (RLS) in New York State provides a direct counseling service on educational opportunities as well as a service that is termed "brokering." In addition to the basic information needed by the client, the Service will also help to provide the specific educational experience in which the individual is interested. In conjunction with RLS, a National Center for Education Brokering (NCEB) has been established to stimulate the creation and expansion of such services.[9]

Projects such as these represent only a portion of the many activities now going on across the country serving thousands and thousands of adults. Wherever such services are operational, the response has been substantial, suggesting that they do meet a real need. The Pascal study also found repeated indications that counseling is a critical factor in the success of training and education programs for adults.

Removal of Obstacles

Another category of proposals is aimed at removing identified obstacles which inhibit adult participation in further education (see Table 7). Student aid programs supported both by the state and federal governments very often have a maximum age for eligibility, do not support part-time students, limit the number of years aid is available, or impose an income test which is inappropriate for the wage earner with a family to support. The removal of these obstacles and the extension of these programs to the adult population would not necessarily be inexpensive. Yet, as suggested by Willard Wirtz and his colleagues, a basic policy objective of ending age discrimination in education could be an important step in assisting those adults who genuinely want to take advantage of further educational opportunities.[10] In many states, there are outright prohibitions against the daytime use by adults of elementary and secondary school facilities. Often, any high school student over the age of 21 must be charged a tuition for public high school courses. Both of these requirements could be lifted, and probably not at great expense, given the declining use of the facilities involved. On the other side of the coin, many states have set a ceiling on tuition for adult education courses sponsored by the public school systems. While the elimination of tuition probably makes sense for basic high school courses, full cost tuition might well be in the public interest for those courses that are purely recreational and for which demand is almost purely consumptive.

Licensing and certification requirements in the states oftentimes mitigate against nontraditional programs and the hiring of nontraditional teachers. In a study for the Institute for Educational Leadership, Richard Meech analyzed the negative impact on nontraditional programs of the widespread state practice of counting full-time equivalent students as the basic unit for formula funding of programs.[11] He makes a strong case that this mechanism often inadequately supports programs in which adults participate.

TABLE 7

Removal of Obstacles:
Administrative or Minor Financial

Federal Level

Student Aid Programs: eligibility requirements should include adults and part-time students; use of maximum amount should be possible in one year; Basic Educational Opportunity Grants (BEOGs) should be available to adults desiring basic or high school courses as well as postsecondary courses; income criteria for wage earners and housewives should be developed.

Manpower Training Programs: open to others besides the disadvantaged and/or unemployed so it will include employed career changers.

State Level

Student Aid: state student aid programs often do not consider adults or part-time students as eligible.

High Schools: prohibitions against the daytime use of facilities by adults should be lifted; requirements in some states that anyone over age 21 be charged tuition should be lifted; state-mandated ceiling on tuition (at least for "consumption" or recreational offerings) should be lifted.

Certification and Licensing: teacher certification requirements should be revised to allow practicing professionals to serve as instructors for adult courses; licensing requirements are often tied to highly traditional definitions of "courses" and "credits" and need to be extended to take account of nontraditional programs.

Funding Mechanisms: state-level formulas for postsecondary education usually use a count of "full-time-equivalent" students as the basis for funding, often creating a disincentive for institutions to take in large numbers of part-time students: a more accurate cost accounting for part-time programs needs to be developed.

Institutions

High school completion courses for adults are often not available at convenient times; few high schools have full-fledged adult completion programs (for those adults who do not wish the GED).

Admissions practices in colleges and universities tend to discriminate against the older student without recent academic experience and against the nondegree candidate, relegating the latter to extension and evening programs.

Finally, there are admissions and scheduling practices used by individual institutions which discriminate against those who are full-time wage earners or who are returning to school after a substantial period of time in the work force. Some of these obstacles may not require much public pressure for change: in the face of the recent slump in enrollments, many institutions are becoming more conscious of the need to attract nontraditional students through the use of more aggressive marketing techniques.

Major Funding Proposals

The proposals and projects described so far are either relatively low cost or require modest changes in current policies and practices. Proposals to support adult education also have been advanced which are much more ambitious and which would require very large increases in public funding. They raise many serious issues regarding target populations, mechanisms of support, and the source of funding. Table 8 contains summary descriptions of a number of these major proposals.

Many of the proposals have grown out of the example set by European nations. They address the objectives of "recurrent education" and are intended to help make it possible for individuals to alternate periods of employment with periods of further full-time educational experience.[12] The proposals differ on a number of dimensions. In some, the target populations are those groups which currently underutilize adult and continuing education: those with lower incomes and those with lower levels of previous education. Others would serve all adults over some given age and, in one case (the Human Investment Fund), participation is envisioned as optional. The level of proposed support ranges from partial tuition payments to the maintenance of income during a period of extended study. A number of mechanisms for funding the proposals are suggested, ranging from general revenues to payroll taxes, to voluntary contributions over some period of time, and to loans with specific income-dependent repayment schemes. Many of the proposals are narrowly education-specific, and one would give to the individual an entitlement or account, which could be applied to varying purposes at different stages in his or her life.

All of these proposals are targeted at an adult population, usually the high school graduate. In the Massachusetts proposal, which has recently received favorable committee action in the state assembly, the target group is made up of individuals who are high school graduates but who have less than four years of college. The grants are on a sliding scale depending upon income and level of previous educational experience and are intended to cover tuition costs for extension programs. The Worker Self-Renewal proposal is targeted at a group defined by employment status and age: the middle-career worker in a declining skill area. The remainder of the proposals are for programs which would serve the total adult population.

What would participation patterns likely be for these proposed programs? It is rather difficult to predict the impact of a given proposal. If current participation patterns carry over, the white-collar worker who has a college education would be most likely to take advantage of a program that is open to the general adult population. For the programs targeted for a specific population, the obvious underlying purpose is to differentially expand the relative participation in adult education of that target group. This raises the question of the extent to which it should be an objective of public policy to expand participation in adult education on the part of those who do not currently participate at high levels (lower income, less educated, older) by somehow reducing the price of such education. Further, if this is the intention, what is the level of subsidy (direct or indirect) which will in fact increase demand? For a given level of subsidy, what will be the impact on the level of demand?

TABLE 8

Major Funding Proposals

Proposal	Target Population	Level of Support	Use of Funds	Source of Funding
Adult Recurrent Education Entitlement Vouchers, Massachusetts (Nolfi, 1973, 1974).	Age 25 years and older, fewer than 4 years of college. Largest level grant to lower income and lower level of previous education.	$50 per credit hour for up to two three-credit courses per semester (i.e., $300 per semester). Maximum per individual: support for 32 courses ($4800 maximum) or college graduation, whichever comes first.	To cover tuition costs for extension, continuing education, and evening classes.	General state revenues, $4 million proposed for 1976.
Age-Neutral Educational Entitlements (Kurland, 1975).	All adults over age 25.	$200 per year after the age of 25 contributed to interest-earning account for individual. Public postsecondary support prior to age 25 deducted (up to maximum of $200 per year of previous support).	Counseling, tuition, materials, income maintenance, contributions to educational and cultural agencies. Can be used at any time, future annual contributions could be drawn upon up to difference between current age and 65 times current annual entitlement.	Federal appropriation from general revenues or special tax. Administering public corporation would be authorized to sell bonds to raise funds.
National Economic Security Fund (Striner, 1972).	Every worker over age 17.	Full-time support for up to 24 months total. Estimated available funds: 9 billion (1975).	All education expenses plus income stipend of approximately 75% of previous income level, depending on size of family, income level, etc., with maximum limit. Institutional grants to encourage new services, counseling, etc.	Federal government would take over all state unemployment insurance funds plus an additional 1.5% payroll tax, shared equally by employer and employee, on incomes up to $9,000. New fund would provide both education-training program and unemployment benefits

TABLE 8 (continued)

Proposal	Target Population	Level of Support	Use of Funds	Source of Funding
Generalized Educational and Social Entitlement (Cartter in Carnegie Commission, 1973).	All individuals over age 18.	Half of tuition costs for up to four years of full-time post-secondary education; Monthly tax-exempt general support allowances, level determined by full- or part-time demands of education; one month of support for every year employed, eligible for use after five years initial employment.	Tuition and fees for approved education or training. General income maintenance while in approved education or training; After age 40, broadened to less traditional educational activities, or to noneducational activities (drawing at half the rate for the latter); Individuals without work experience could draw on spouse's credits but at half the rate; After 60: withdrawal by individual for any use, with option to transfer into Social Security account.	General revenues (substituting for other forms of student aid). Income maintenance funds provided by regular employer/employee contributions in the form of a payroll tax.
Income Contingent Loans: Educational Opportunity Bank (EOB) for Adults (Biederman and Billings in Mushkin, 1973, after Hartman, 1971).	All adults.	Not specified.	Education or training expenses, income maintenance during retraining.	EOB: borrowers would agree to make repayments of T% of income for X years for each $1,000 borrowed, to some maximum of loan plus interest compounded at some rate R. Variant: variable term payments to age 65, depending upon age. Federal revenues make up any shortfalls in repayment stream.

TABLE 8 (continued)

Proposal	Target Population	Level of Support	Use of Funds	Source of Funding
Worker Self-Renewal Program.	Mid-or late-career workers in declining industries and skill categories growing at less than 2.2% annually (estimated 500,000 workers per year).	Average training costs of $2,000 per person plus income maintenance grant of 70% of regular annual salary up to maximum of $5,600. Total cost per year of $3 to $4 billion.	Support of training programs targeted to effect re-employment in growing industry or skill areas; income support while in training.	Payroll tax: increment of 0.75% on wages up to $9,000 would be required.
Universal Worker Self-Renewal Program (O'Toole, DHEW, 1973).	Same plus mid-career job changers: estimated to be 3 million participants per year.	Six month worker sabbatical every seven years, plus training or tuition costs. Total cost up to $20 billion per year.	Broad education programs.	Payroll tax, employer and employee contributions.
Human Investment Fund (Dresch in Mushkin, 1973).	All high school graduates, by individual choice of participating or not; decision must be made before age 25.	$10,000 endowment (to be inflated over time) for each individual.	Before age 48: any broadly defined human capital forming purposes; after age 48: totally unrestricted.	Annual tax on fixed percentage of income from age 18 to age 48; level of tax based on calculations of expected income levels, etc.; federal appropriation to make up any shortfalls; maximum lifetime contribution of 120% of total debt.

The response to the first of these issues—basic as it is—will ultimately be a matter of personal and political values. The underlying value being pursued may be one of equity: those who, for whatever reason, earlier in life received less of the public good called "education," should be given preferential opportunities in their middle and later years. The ultimate value may be economic: the overall economy will benefit if those in the work force whose skills are most likely to become obsolete have attractive and subsidized opportunities to maintain their viability in the marketplace. Finally, the intention may be to provide a continuing opportunity to improve the quality of one's life. When some level of economic and physical comfort is ensured, money and status may become less important and the role of education in exploring one's other interests and potentialities may increase.

Once the purposes of policies and programs are established and accepted, there is the problem of assessing whether the proposed subsidies will in fact increase participation by the intended group. The apparent sensitivity of overall participation to general economic conditions and the study by Bishop and VanDyk referred to earlier support the logical conclusion that participation is cost sensitive. However, it is possible that at given levels of subsidy, participation may be more motivation-dependent than cost-dependent. For example, the auto workers' union at General Motors has negotiated into its contracts the availability of $200 per year of employer support for education and training. At that level of subsidy and incentive, the participation behavior of that population does not appear to have been significantly affected. It is estimated that only 1 percent of the workers actually participate in this option. Studies suggest that a very low participation rate is typical of education benefit programs contained in union contracts.[13] A very low participation rate also is being experienced in some of the innovative European programs.[14]

Other evidence suggests that adequate promotion of company-sponsored education plans can significantly expand participation. At the Kimberly-Clark Corporation, a program of education support for employees and their families was given high visibility and promotion within the company. The result was a very high level of participation. Apparently, if programs are promoted, demand for adult education can be generated or actualized.

There is, however, another issue to be considered: At a given level of subsidy (particularly lower levels), to what extent will an education program substitute for current private dollars rather than altering participation patterns? The $300 per semester subsidy in the Massachusetts plan may or may not substantially increase participation. It also may simply have a substitution effect, transferring the burden of payments from private funds to the public treasury. If enacted and implemented, the Massachusetts experiment will form a useful opportunity to evaluate actual response to a program of support to individual adults for further education.

The level of subsidy in the proposed programs ranges from that of the Massachusetts plan to the program devised by Striner, which would provide income maintenance at 70 percent of current income for up to two years, as well as all direct education expenses. The annual cost of such a program could easily approach $7 billion or $8 billion at an individual level of subsidy (for full participation) of perhaps $15,000 to $20,000 per person. Other proposals would build up a fund over time (the Human Investment Fund, the Worker Self-Renewal Program, etc.), the amount available being dependent upon level and period of participation.

If large sums of money are to be provided to the individual in an education entitlement or endowment account, why should the use of the entitlement be limited to education? Might it not be more appropriate to leave to the individual the option of weighing the value of alternative goods and deciding among them? The proposal by Cartter moves in this direction. It provides that up to

age 40, the dollars in the individual's fund may be used only for more traditional educational activities and for income maintenance during a period of study. Between ages 40 and 60, the proposal would allow use of the dollars for nontraditional education and, with a penalty, for non-education expenditures. After age 60, the funds would be available for any use, including transfer to a retirement fund. This proposal moves in the direction suggested, but still has drawbacks—why wait until age 60 to allow other uses for the social entitlement fund, and why penalize participants for using the dollars for non-educational purposes?

There are two possible reasons for limiting these funds strictly to education. The first of these is simply to support education by categorically stimulating demand. The second would be to assert the "value" to the individual and society of further education and, through an incentive structure, to urge upon him participation in what society has decided is good for him. This latter purpose presumably would support the underlying values of both equity and the economic needs of the society. A "quality of life" argument, however, would lead to supporting a much broader concept of entitlement unless it is argued that public policy ought to dictate what it is an individual should choose to do to enrich his or her life.

The Dresch proposal for a Human Investment Fund raises another issue: Ought participation (in terms of payment into the fund) be voluntary or mandatory? A voluntary program would resolve some of the issues raised earlier, but would create other problems. It is quite likely that voluntary participation would simply reinforce current participation patterns, shifting such patterns only slightly. It is also possible that a very unpredictable target group might self-select itself into a voluntary program. Those who made a decision to change their life style at the cost of a lower income might predominate with a substantial lowering of at least the economic benefits of the program.

A final issue concerns all of the proposals: From what source of revenue ought programs for adults and for middle-aged career changers be financed? The Massachusetts proposal and the proposal for Age-Neutral Entitlements would be funded directly from general revenues. The National Economic Security Fund and the Worker Self-Renewal Program would rely on payroll taxes, usually with contributions from both employer and employee. The Cartter proposal would be funded by a contribution of both general revenue and payroll taxes. Finally, the Human Investment Fund and the Income Contingent Loans both would place a tax on the future income of the participating individual, with a federal guarantee to cover shortfalls.

The use of general revenues to fund such programs would be relatively progressive. If the programs are targeted on specific populations (either directly or with a sliding scale of benefits), the total program could be redistributive in effect. Payroll taxes, on the other hand, tend to be regressive. Depending upon the impact of the subsidy levels on participation, the total program could turn out to be seriously regressive. Those individuals at the higher levels of income would pay proportionately less into the program and, given the likelihood of having higher levels of previous education, would probably participate at a much greater rate. The net effect would be a substantial shift of resources from lower income and less well-educated workers to white-collar middle-class adults.

There are also problems with proposals that would be financed through a tax on the future income of participants. Inevitably, estimates of future cash flow rest on assumptions of an increased future stream of income resulting from further education. If the strictly economic value of education is indeed declining, as Freeman asserts, that effect plus the self-selection of participants as

discussed above could drastically undercut those assumptions. Schemes which rely upon a substantial increment in future income on the part of participants might run heavily into debt. Where (as is usually the case) general revenues of the federal government are proposed to take up any slack in the program, the programs so constructed could evolve from a federal guarantee to a direct and large federal subsidy. Recent problems with default rates in student loan programs suggest that the art of predicting changes in human behavior when confronted with a substantially altered set of incentives is at a rudimentary level. The lack of information about potential behavior creates an unease about full-scale implementation of programs which are voluntary and which carry a public guarantee of funding.

Proposals for Tax Incentives

Another proposed mechanism for increasing participation by adults is the use of expanded tax incentives for individuals or employers. Tax incentives are considered an attractive mechanism by some for a number of reasons. They provide public stimulus of a desired activity without a direct expenditure of public monies. Given the lack of direct funding, they leave to the individual the task of balancing priorities (though now with altered costs) and making the decision to participate or not. There are corresponding disadvantages, however. There are real costs to the total federal budget (i.e., they reduce income rather than increase expenditures) and those costs do not have limits which are either easily defined or controlled once the incentive is established. They also can be extremely complex and can have unforeseen, unintended, and perhaps highly undesired results.

Table 9 lists a number of tax proposals which have been put forth for the purpose of increasing adult participation in education. The current IRS code and regulations construe very narrowly the kinds of expenses for further education which an individual may deduct from his gross income.[15] Only activities demonstrably required for maintenance of a present position are allowed. This regulation provides an incentive for the individual to take only courses which relate very closely to his current employment pattern, and discourages him from using further education as a means either to advance to a significantly higher position or to explore alternative career options. If the "career redirector" pursues a course of study to qualify himself for a drastically different career pattern, such expenses are not deductible, nor are the direct expenses of seeking another job once he has the new qualifications. Simply allowing the deduction of such expenses is one possibility for increased participation. Education and training costs also could be included in the definition of "business expenses" or, in a suggestion made by Selma Mushkin, an "education depreciation allowance" could be given to the individual for the cost involved in maintaining and creating education capital, with total depreciation over some period of time.[16]

While the current treatment of individual education expenses by the tax code is without question rather narrow, its expansion presents another set of problems. Adults participate in further education for a wide range of purposes, ranging from simple recreation and cultural enrichment to the improvement of job- or career-related skills. Once expanded beyond the current definition of deductibility, what should be included? Should recreational and enrichment activities be in effect subsidized by tax benefits? If not, where and how should the line be drawn? There is a danger that provisions might become very complex and, even then, that the distinction between allowed and disallowed expenses would still be quite arbitrary.

Another approach to tax incentives for the individual would be to allow the deferral of the payment of taxes on those dollars allocated to educational purposes. In a bill introduced in a recent

TABLE 9

Tax Incentive Proposals

Individual: Deductions

1. Revise IRS Code Section 212(F) and Regulations 1.162-5 to allow as a tax deduction expenses for any career-related educational or training activity, perhaps spread over a period of time. (Current regulations allow only narrowly focused education *required* for maintenance of a present position.)

2. Revise IRS Code and Regulations to allow deduction of some expenses of training for and changing to another job.

3. Treat education and training costs as a business expense, or create an "education depreciation allowance" for costs of "creating" education capital.

Individual: Deferral

1. Mikva Bill: defer payment of income taxes on expenses for tuition, fees, books, supplies, equipment for up to ten years, interest free. Maximum tax deferred: $1,500 per year, $10,000 per student.

2. Allow the individual establishment of tax-sheltered annuity plans for future educational purposes, similar in operation to the Individual Retirement Account (IRA).

Employer:

1. Provide accelerated depreciation schedules for investments in training facilities.

2. Impose an additional tax on corporations that do not provide training and educational opportunities for their employees (perhaps using the revenues to fund expanded public programs for such employees).

session of the U. S. Congress by Representative Abner Mikva, expenses for tuition, fees, books, supplies, and equipment would be deferable, interest free, for up to ten years. The bill was proposed primarily as a means of cost-of-education relief for middle-income families but, because those expenses could be for the wage earner as well as for dependents, this provision could provide a modest incentive for adults to participate in further education.

Another option would be to make the entitlement programs such as those proposed by Kurland, O'Toole, Dresch, etc., completely voluntary but financed through the taxing mechanism. Following the model of the recently established and apparently successful Individual Retirement Account, the IRS code could be amended to allow individuals to establish tax-sheltered annuity plans for future educational purposes, paying taxes on such income only as withdrawn for use. For the individual with an income level sufficient to support such a program initially, this approach could provide the opportunity to create his own support mechanism for future "sabbatical leaves." The introduction of a loan mechanism would further increase individual flexibility in determining when to pursue additional education.

The tax code already provides some incentives for employers to invest in training and education programs for employees. The direct costs are deductible business expenses and the costs of facilities used for training can be depreciated over a five-year period. Proposals have been advanced to strengthen these incentives. It would be possible, for example, to increase the allowed deductions to include the salary of the employee while he or she was in training. This would presumably encourage employers to allow more extended periods of education or training, possibly as a short-term alternative to layoffs. Facility costs could also be put on accelerated depreciation schedules.

Tax changes also have been proposed which would encourage corporations either to establish education benefits or to promote already available but apparently highly underutilized programs. An aggressive policy to do so would be to impose a tax on those corporations which do not have retraining programs for employees or which have them but with participation below some "ideal" level. The revenues of such a new tax could then be earmarked to establish programs (or direct entitlements) for employees for whom no program is available. A scheme similar to this is currently in operation in England. Such a mechanism should be undertaken cautiously. Beyond the obvious difficulties of imposing new taxes (especially for narrow categories and purposes), the reasons for low participation are not well understood nor is it clear why unions have not found it in the interests of their members to take up the task of promotion. The companies may deliberately underpromote such programs to avoid the subsidies they require. But it may also be that workers see little value in drawing upon these benefits. The underlying factors need to be much better understood before policies can be recommended with confidence.

The Need for Recurrent Education Programs

What is the need for full-fledged recurrent education programs for the general adult population? The evidence is strong that the level of job dissatisfaction in our society is, on the average, high. Many middle-aged adults are apparently dissatisfied with their job situations. Furthermore, the research literature establishes a strong tie between job dissatisfaction and other indicators such as marital instability, alcoholism, and shortened life span. The impact of job-related stress on health is well known, suggesting positive economic and social benefits from dealing with extreme levels of job dissatisfaction.[17]

A large-scale recurrent education program is often proposed as one way to deal with what are clearly serious individual and social problems. By creating extended "sabbaticals" for all workers,

these proposals would provide the opportunity to increase skills, establish credentials for a higher level job, or substantially change career patterns. Education for the worker would be a means to escape the locked-in job situation presumably responsible for the high levels of job dissatisfaction. Further, a major program of education leave for the adult would redress what are described as intergenerational education inequities caused by increases in access to educational opportunities over time. Finally, recurrent education is viewed as creating opportunities for enrichment and for supporting continuing personal development through the middle work years and into retirement.

In spite of the seriousness of individual and social problems and the clear desirability of the claimed benefits of a recurrent education program, massive public support at this time should only be considered with substantial caution. One reason, mentioned earlier, is the difficulty of identifying for policy and program purpose those individuals who are most seriously disaffected. In the absence of targeting, the cost of a program for the general adult population would be very high and the principal beneficiaries would be those who are already well educated and enjoying the rewards of higher than average incomes.[18]

Another reason for caution is that a direct link between further education and improvements in job satisfaction is not well established. The evaluations of manpower training programs do show a positive impact on subsequent employment. Assuredly, being employed after a period of unemployment could hardly be debated as representing some increase in job satisfaction. However, beyond the training itself, counseling and placement appear to play a major role in the successful programs. Aside from programs for the unemployed, little evidence is available that further education (either short term or long term) contributes substantially to ameliorating the causes of job dissatisfaction. The low utilization rate for education benefit plans suggests that the worker sees little benefit to be derived from participation, even when external incentives to participate are present.

There is also a question of the educational impact of an anticipated promotion squeeze and the lessening of vertical mobility in our society. As discussed earlier, there is limited evidence that the white-collar worker who drastically shifts gears in mid-career will suffer for it with lower status and income. That effect is likely to be exacerbated by increasing tightness in the promotion track. If upward job mobility diminishes throughout society (as many predict), the individual may find that he is transferring to another track which is probably just as crowded. Furthermore, he will now be competing with the additional handicap of a relative lack of seniority and adequate experience in that track for his age. He may find that the shift has once again put him at the end of the line.

Data on the impact of education sabbaticals on the upward mobility of the blue-collar worker are not available. Other than general considerations of the tightness of job markets, high unemployment rates, and the increasing competition from the better-educated young worker, little of a specific nature can be said. While it may be difficult for the worker to alter the rate at which he moves on a career track, limited opportunities to move to a different track may remain available, given targeted retraining. There is also the possibility for any worker that a lack of upward possibilities may reinforce already present job dissatisfaction and lead to a more ready acceptance of a reduced income as the cost of obtaining a more satisfying job. A reduction in upward job mobility may lead to a shift in the balance between the value to the individual of economic benefits and the less tangible rewards of work. The psychic rewards of a different career may come to outweigh the financial sacrifice exacted by the change.

The intergenerational equity argument is less compelling for this country than for European nations and, if logically carried through, would lead to somewhat different policies. A major

purpose of European programs is to ensure older citizens an opportunity to obtain the education they were denied when young. In transferring this argument to this country, care needs to be taken to recognize differences in education history. The age-education structure of this country's population is very different from that in Europe: for many years the United States has had the most educated population in the world. This is not to deny the existence of inequities among age groups. However, these must be weighed against other, possibly more compelling, inequities. The differential achievement levels of minority and poor children in elementary and high school still exist and will impose enduring burdens on those individuals and society. Equal access to postsecondary education is not yet a reality for many young people and economic conditions in higher education may even be reducing gains that have been made. In the face of limited resources, considerations of equity could be used to argue for a careful and deliberate focus of public support on providing basic levels of competency and skills for the young *before* expanding general support for the middle-aged career changer.

Ultimately, it may be premature to look initially to a restructuring of education as the path toward improving the education-job-life satisfaction linkages for Americans. As Wirtz and others have suggested, perhaps the task of reshaping the role of work in our society and the relationship of the individual to the total economy is a prior conceptual and political task. Once that task is underway, the restructuring of education in support of such changes as emerge may be much more apparent and supportable than it is now.

V. CONCLUSIONS AND RECOMMENDATIONS

There is little doubt that the education of the adult is an important and expanding concern for our society. The past half decade has witnessed a substantial increase in participation by adults and in efforts to identify and meet their educational needs. A wide range of proposals for expanding public support for adults in education has been put forward. Which of these proposals is most critical? Which should be undertaken as high-priority activities of federal or state governments? The purpose of this final section is to attempt to suggest priorities among these proposals and to place them within the context of other competing demands for public support.

This attempt is seriously hampered by two factors. First, as has been evident repeatedly in earlier sections, data and research providing insight into many critical aspects of these policy questions are seriously lacking. A high-priority activity would certainly be a program to seek better information and insights. Second, recommendations for social policy, if they are to have any substance, must of necessity involve uncomfortably large doses of value judgments. All identified social needs cannot be fully met with limited resources. Choice is forced on us and ultimately that choice devolves to an assertion of preference for one available good over another. The recommendations of this final section are offered as just such a blend of available information and a set of values that determines priorities among many competing (and quite desirable) ends.

This paper has described the characteristics of adult participation in education. Overall trends indicate that rapid growth in participation early in this decade has been followed by a slowdown in the expansion of adult involvement. In the judgment of the author, it appears likely that the recent slowdown is, indeed, a sign of some form of saturation in growth in adult education. Factors which apparently caused that growth (rapid expansion of the junior college networks, the G. I. Bill, favorable economic conditions) are changing and are not likely to reappear in combination in the near future. It is also possible (although probably unlikely) that shifts in employment and the role of education in our society coould lead to an actual decline in adult enrollment in educational activities.

Overall trends, however, can hide critical problems. There are subgroups of the aggregate adult population which apparently have serious and substantial educational needs: the severely undereducated, the unemployed (particularly the young, among whom unemployment is very high), minority groups, who only recently gained access to postsecondary education in equal proportions to the white majority, and women, who are entering the labor market in larger and larger numbers. To what extent should policies be changed or programs launched to aid these groups?

Our nation long ago established that a basic education for every child is both a public good of high priority and an individual right. Compulsory attendance laws into the high school years and free elementary and secondary education have assured that this social good is available to all children. But the value placed on a basic education has a strange time limit: policies and practical reality imply that it is a social good and an individual's right only up to the age of 21 (in most states). Once an adult, barriers to the pursuit of a high school diploma can be formidable.

A clear reassertion of the role of education in our democracy would be to eliminate or minimize this age discrimination. In the most educationally advanced country in the world, rudimentary verbal and mathematical literacy and the opportunity to obtain training in basic skills should be regarded as a right at any age. Basic education up to and including high school should be made readily and cheaply available to all citizens, especially those who are between 25 and 50 years of age. This should be a high priority for public policies and programs. To implement this, specific actions could be taken at the federal and state levels:

1. Support should be increased at all levels for adult basic education programs and the federal adult basic education program should develop incentives to ensure that states take full advantage of the resources available;

2. States should eliminate extraordinary or excessive charges to adults attending high schools and enrolled in core courses;

3. Daytime high school classes should be opened to adults and adults encouraged to enroll, and many more nighttime high school programs for adults should be established by state and local education agencies;

4. Section 212 of the Internal Revenue Service Code should be amended to allow the deduction of all legitimate education expenses associated with an adult taking courses at the elementary or secondary levels.

Among those adults without a high school diploma, especially young adults, there appears to be a great deal of demand for high school training which the GED examination does not meet. Many adults *need* formal instruction, deeply desire a "typical" high school education, and place great value on a proper high school diploma—but they are hesitant to return to sit with younger students. Many more formal high school programs for adults are needed. Where such programs have been established, the number of applicants is usually well beyond the funded capacity of the program.

For the unemployed, for those returning to the labor market after an extended absence, and for those who are highly dissatisfied with their job or career, the principal underlying social concern is not primarily education but rather employment. The underlying value commitment is our society's long-standing attempt to provide gainful and reasonably satisfying work to those in our society who seek it. Education becomes a means to accomplish this end. For the unemployed, education or training is apparently most effective when its role is explicitly recognized and designed as supportive of the ultimate goal of employment. Manpower programs (with a counseling and educational component) appear to be the most effective investment of resources to meet the needs of this group.

For the individual returning to the job market or entering it for the first time at a later age, the diploma or other credential, functioning as it does as an eligibility criterion, is of critical importance. Where the individual is seeking a high school diploma, actions such as those just suggested would make the effort easier or less expensive. For the person seeking a college degree, other policy changes would be necessary. While there have been recent improvements, student aid programs still tend to exclude or otherwise discourage the part-time learners. Limitations on the number of calendar years in which one can participate have a similar effect. The result is serious discrimination, especially against the adult student who must continue to support a family while pursuing a college education.

What about programs for those with high levels of job dissatisfaction or those who wish to make a major shift in careers? To a great extent, jobs, the nature of work, and the condition of the employment market are more central to these problems than is education. Programs and policies need to be developed to deal with underlying causes and problems, integrating education and training programs as one of the means for their amelioration.[1]

Large-scale general aid or recurrent education programs intended to address these problems are probably premature and should not be established at the present time. There are several reasons for this recommendation. First, the role that education can play in solving problems generated by the structure of work in our society is not well understood. Second, there is a discomforting lack of evidence on which to base any assessment of the likely impact, effect, and ultimate costs of such programs. If current patterns of participation and the experience in European programs provide any guide, the principal beneficiaries of a general aid program would be those who are already well educated and in middle- and upper-income jobs.[2] Unless general support is at relatively high levels, the participation of especially needy groups would probably increase only marginally. And high levels of subsidy would bring along additional costs generated by a substitution of public dollars for what is currently being purchased with private dollars.

Finally, largeness and high cost lead to a problem of political support. A major proposal (requiring hundreds of millions or even billions of dollars) would find itself being balanced against major and in many cases more deeply felt social needs. Health insurance, welfare reform, employment programs for youth, maternal and infant nutrition programs all compete with education for federal monies. Even within education, many would argue that adequate funding of compensatory education for elementary and secondary students or Basic Educational Opportunity Grants should have a prior claim. Recurrent education does not, at present, rank with these problems on the priority lists of many policy makers.

If not a major funding program, then what? Much can be done to aid adults who are pursuing further education. Three important areas of effort would cost relatively little and yet would be of great benefit. These include:

1. Supporting and expanding efforts to facilitate adult participation through providing such services as counseling, information on education and career options, and brokering;

2. Supporting the development of materials and methods of instruction that are appropriate and attractive to adults, especially those which, through the utilization of technology, can be made available to large numbers at low cost;

3. Increasing the understanding of the extent and precise nature of the education needs of the adult, the nature of current public subsidies for adult education, and the value of current programs.

As discussed in the previous section, some evidence is available which shows that adults derive substantial benefits (at relatively low costs) from counseling and facilitating services. At this time, the development of these projects is not yet far enough along to argue for a program to stimulate wide-scale implementation in all of the states.[3] Federal or state dollars would be best spent on concentrated developmental and evaluation efforts which, once accomplished, would probably lead to programs that could be widely implemented for relatively small amounts of money. Similarly, the development of instructional materials and techniques for the use of emerging technologies, while seemingly costly, is much less so than large support programs and is likely to eventually have a substantial impact.

The most critical current need is for a better understanding and insight into the nature of the educational needs of adults, particularly as these relate to public policies. Studies which are now in progress or need to be undertaken include the exploration of:

1. The unique educational needs of subgroups of the total adult population, including women, the unemployed, minorities, and potential career changers;

2. The nature of job dissatisfaction in our society and the role that education can play in dealing with it;

3. Existing patterns of subsidies and financing of adult education in the various institutions that offer it,

4. The reasons for the low utilization rates being experienced in employer-subsidized education benefit plans;

5. The likely effects of additional tax incentives provided to industry for the purpose of stimulating employer-supported education programs.

In addition, a thorough survey of the learning activities of adults, carried out with a sample of the total NCES survey population, would be invaluable. The NCES survey very likely understates the actual level of education being sought by adults. A reliability survey with the broader definitions and more thorough interviewing techniques of the Johnstone and Rivera survey could serve to establish the current extent and nature of that understatement.

Changes in the tax law also could aid those working adults for whom foregone income and the costs of education are the principal barriers to pursuing further education. Broadening the allowed education deductions would represent a small step toward implementing a recurrent education strategy. Unfortunately, new regulations, unless they would allow the deduction of any and all education expenses, would still remain rather arbitrary and would provide greater benefit to those with higher incomes. While the same group would also benefit, amendments to the IRS code to allow the creation of tax-sheltered savings and investment programs for educational purposes should probably be considered. This would encourage individuals to sort out their own objectives and develop their own individual plan for recurrent education, rather than imposing any such plan.

Within this past year, the mechanisms with which to pursue many of the above recommendations have been established. In late 1976, Congress added to the Higher Education Act of 1965 a lifelong learning program which, if funded, could support the explorations and pilot projects just recommended.[4] In the amendment, the Assistant Secretary for Education is empowered to carry out, among other things, the following:

1. A review of present and proposed methods of financing and administering lifelong learning, including existing foreign programs,

2. A review of lifelong learning opportunities;

3. An identification of existing barriers to lifelong learning and proposed solutions;

4. An assessment of the appropriate roles for federal, state, and local governments, educational institutions, and community organizations in implementing lifelong learning;

5. The development and evaluation of techniques and systems for the guidance and counseling of adults,

6. The development and dissemination of instructional materials for adults; etc.[5]

Hopefully, this program will be implemented by DHEW and adequately funded by Congress. Given the current understanding of this policy area, the program as enacted represents the ideal next step for federal policies and programs. If successful, light will be shed on the many unresolved policy issues and a strong voice of advocacy for the adult's lifelong needs for educational opportunities will have been created.

APPENDIX

This Appendix is intended to supplement the description of participation in adult education provided in the second section ("The Adult in Education") of this paper. The surveys—particularly those performed for NCES—provide a highly detailed profile of adult participation (within the limitations of the definitions of adult education used in given surveys). Some of this rich collection of information is summarized in this Appendix. The major source is the 1975 NCES survey.

Other Social Characteristics

In Section II, the relationship of participation to age, previous education, and family income was discussed. Participation also differs across other social descriptors of the total adult population. For example, in 1975 (Table A-1):

1. Females participated at a rate only slightly lower than males (11.6 percent for females versus 11.7 percent for males);

2. Of the male participants, 90 percent were working, while only 61 percent of the females identified themselves as working and 30 percent as keeping house;

3. In 1972,[1] widowed or divorced females made up a significant proportion of the female participant population: 12 percent of all female participants were in this category while only 2.8 percent of the male participants were;

4. Also in 1972, 1.7 million of the almost 8 million female participants were heads of households, about one-third of them with one or more children to support; in contrast, 6.8 million of the 7.7 million male participants were heads of households, 4.3 million of whom had children to support;

5. In 1975, blacks had an overall lower participation rate than whites (6.9 percent versus 12.7 percent); however, when differences in previous educational attainment are considered, the participation rates are almost identical;

6. In combining sex and race characteristics, black males participated at the very low rate of 6.1 percent, only slightly above half the total participation rate of 11.6 percent.

Employment and Occupation

The bulk of the adult participant population, over 12 million people, identified themselves as employed, and represent over 15 percent of all employed adults (Table A-2). Thus nearly one in six of the members of the labor force participated in some form of adult education. The next largest group numerically were those who identified themselves as housekeepers, numbering 2.7

million and participating at a rate of 7.7 percent. Those who identified themselves as seeking work numbered about three quarters of a million individuals. Their participation rate (10.8 percent) was lower by almost a third than the employed group.

Participation by occupation group is mostly as might be expected from the relationship of participation with education and income (Tables A-3 and A-4). Less skilled workers participated at a much lower rate.[2] For example, farmers and farm workers participated at a level of 5.6 percent, well below the 11.6 percent for the total population. At the other extreme, one in three professional or technical workers participated. Within that group, *almost half* (43 percent) of employed elementary and secondary school teachers were participants in some form of adult education. This is a strong suggestion of the potential effect on participation levels when the employer establishes further education as a prerequisite for job and salary advancement.

Kinds of Courses Taken

The NCES survey collects highly detailed data on the courses or activities in which adults are involved, including the actual subject area. Some of these findings are presented in Table A-5 and can be summarized as follows:

1. Almost a majority of participants (8.3 million, or 49 percent) were taking occupational courses;

2. Within the occupational category, some 3.8 million participants (or 22 percent of all participants) were involved in vocational and technical training while 7.2 million (7 percent) were in managerial courses, and 3.6 million (21 percent) were taking professional courses;

3. Over 3 million participants (21 percent) were registered for general education courses; of this number, 2.8 million were taking high school or college courses for credit and over half a million were engaged in adult basic education courses.

While 17 million adult participants is a sizeable group, the effective impact on educational institutions is substantially less. A participant engages, on the average, in 1.6 "courses" per year. Eighty-five percent of all participants took only one (68 percent) or two (17 percent) courses during the preceding year. According to the NCES data, the average participant was involved in close to 90 hours of instruction during the year. This is about one-sixth of the instructional load for a full-time student. Roughly then, the 17 million adult students are equivalent to less than 3 million full-time students.

Dropouts from Adult Education

Dropouts among adults are fewer then would be expected given the perception of the adult learner as an in-and-out student with a much lower level of commitment and persistence than the full-time younger student. Table A-6 summarizes the survey data that support the following observations:

1. In 1975, less than 7 percent of all participants (1.6 million people) dropped at least one educational activity during the year. Of those who dropped, some 73 percent had taken five weeks or more before dropping, while some 16 percent had stuck it out for a year or more.

2. Disappointment in a course (25 percent) and conflicts with other commitments (16 percent) were the major reasons accounting for almost half the drops. Excluding "other," which was the reason chosen by 16 percent of those who dropped, financial reasons rank eighth on the list and were given by only 4.7 percent of those who dropped. Apparently, once the financial commitment is accepted by the act of enrolling, other reasons become predominant in the decision to drop out.

Both age and level of previous education have a strong relationship to persistence in adult education activities. The youngest age cohort (17 to 24 years of age) drop at a higher rate than older groups. The drop rate is almost twice the average for those participants with no high school and declines to about half the average for those who have had postgraduate work. An explanation often advanced for this disparity is that those with less education initially were less successful in school, feel more intimidated by the classroom setting, and hence continue that pattern of behavior.

The dropout behavior of the adult student is not well understood and can be viewed from differing perspectives. There is some evidence, for example, that adults are more likely than younger students to leave a course when they have learned what they wanted to learn, whether the course is complete or not. Blacks apparently often drop out for financial reasons but then have a very high return rate. Without more understanding of such factors and motivations, it is difficult to prescribe any specific programmatic or policy actions based on this data.

Sponsoring Agencies

Another important consideration for the policy maker is the institutional impact of these adult participants: what agencies are providing the courses or activities? According to the data collected in the NCES survey, colleges, universities, and technical institutes hold a large share of the adult education marketplace (Table A-7). Together they account for 40 percent of the activities and attract 37 percent of the participants. Employers rank third, sponsoring some 3.2 million "activities" (12 percent of all activities) for 2.6 million participants. The public school systems are also major suppliers of adult education with 2.3 million people enrolled in almost 2 million activities.

The decision as to what constitutes an educational experience affects the institutional profile substantially. The study done in 1962, because of a much broader definition of education, leads to very different results.[3] In that survey it was found that churches and synagogues enrolled the largest number of participants (24 percent), with colleges and universities and community organizations next in line (20 percent and 17 percent, respectively). While changes over the 13-year period may account for some of the differences, this again illustrates the fact that the NCES survey should be regarded as descriptive of only part of the total picture of adult education.

Reasons for Participation

Why do adults participate in further education? Some suggestion of at least one reason has already emerged: occupational courses form a large proportion of the adult education activities. Beyond this external indication, what are the motivating causes for participation as identified by the individuals themselves? The data (Table A-8) support the following observations:

1. The majority of participants indicated that the principal reason for being involved in further education was job related. Some 9 million participants (53 percent) chose either job improvement or advancement or an effort to obtain a new job as the principal reason for their participation;

2. The next largest number of responses was to the category "personal or family interest" (28 percent), and following that some 14 percent identified a desire for "general information" as their reason.

While the cross tabulations for the 1975 survey are not yet available, in 1972 those who were pursuing advancement on a current job (excluding those seeking new jobs) were considerably more persistent than average in completing their courses. In 1972, 6.7 million were in this category and had a "dropout rate" of only 5.6 percent, slightly more than half the average. This is quite likely because many of these participants were taking courses either sponsored by or paid for by the employer, so that incentives to complete were stronger than usual. A job was not often a factor in the decision to drop out.

Who Pays?

Another important policy question is the level of tuition and fees and the source of payment for the courses and activities being taken by these 17 million adults. Although no cost data were collected by any of the surveys, the NCES survey did ask about the source of direct payments. The participant or the participant's family paid for the adult education activity in over half the cases (57 percent). Employers were identified as the source of support by another quarter (27 percent) of all participants. The other major source was public support, which provided for the tuition of about 17 percent of the adults.

Changes in Participation Over Time

Tables A-9, A-10, and A-11 summarize changes in participation rates by age, previous education, and family income as they have changed from the 1969 NCES survey to the one done in 1975. The discussion of this data is in Section II of this paper.

TABLE A-1

Participation by Sex and Race: 1975*

		White	Black	Other	Totals
Male	Total Population	61,193	6,625	990	68,810
	Participants	7,499	404	125	8,027
	Rate	12.3	6.1	12.6	11.7
Female	Total Population	68,399	8,231	1,163	77,792
	Participants	8,240	627	165	9,032
	Rate	12.0	7.6	14.2	11.6
Totals	Population	129,592	14,856	2,153	146,602
	Participants	15,739	1,031	289	17,059
	Rate	12.1	6.9	13.4	11.6

*Population and participants in thousands, rates as percent; excludes full-time students; totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-2

Participation by Employment Status: 1975*

	Total Population	Participants	Rate
Employed	83,009	12,782	15.4
Seeking Work	7,505	810	10.8
Housekeeping	35,042	2,705	7.7
Student	6,209	278	4.5
Unable to Work	2,971	44	1.5
Other	11,867	439	3.7
Totals	146,602	17,059	11.6

*Population and participants in thousands, rates as percent; excludes full-time students; totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-3

Participation by Occupation: 1975*

	Total Population (thousands)	Participants (thousands)	Rate (percent)
Professional/Technical	12,860	4,253	33.1
Farmers, Farm Workers	3,070	171	5.6
Managers and Administrators	8,988	1,437	16.0
Sales	5,275	828	15.7
Clerical	14,534	2,305	15.9
Craftsmen and Kindred	10,881	1,433	13.2
Operatives	12,395	854	6.9
Service, Domestics, Nonfarm Workers	15,005	1,500	10.0
Unemployed or Not in Labor Force	63,593	4,692	7.4

*Source: NCES survey, 1975.

TABLE A-4

Participation by Employing Industry: 1975

	Total Population (thousands)	Participants (thousands)	Rate (Percent)
Agriculture	3,518	203	5.8
Mining	769	126	16.4
Construction	4,916	517	10.5
Manufacturing	18,786	2,270	12.1
Transportation and Utilities	5,479	794	14.5
Wholesale and Retail Trade	16,794	1,745	10.4
Finance, Insurance, Real Estate	4,589	1,015	22.1
Public Administration	4,690	1,112	23.7
Miscellaneous Service	22,151	4,940	22.3
Private Household Service	1,318	60	4.6

Source: NCES survey, 1975.

TABLE A-5

Number and Kinds of Activities
and
Number of Participants Involved
in Each Activity*

Activity Name	Activities		Participants	
	Number (thousands)	Percent	Number (thousands)	Percent
General Education	6,630	24.5	3,518	20.6
Occupational	11,582	42.8	8,307	48.7
Community Issues	1,982	7.3	1,699	10.0
Personal and Family	3,017	11.1	2,532	14.8
Social and Recreational	3,181	11.8	2,714	15.9
Miscellaneous	655	2.4	552	3.2
Totals	27,047	100	17,059	100

*Totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-6

Number of Participants Dropping Courses and Reasons Given*

Reason	Number of Participants (thousands)	Percent
Disappointed in Course	294	24.9
Too Much to Do	187	15.8
Illness	132	11.2
Time Inconvenient	102	8.6
Demands of Child Care	70	5.9
Change in Job	69	5.8
Change in Residence	61	5.2
Financial	56	4.7
Location Inconvenient	36	3.0
Other	188	15.9
Not Reported	14	1.2
Total Dropping	1,182	100

*Totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-7

Sponsor of Activities by Number of Activities and Number of Participants*

Sponsoring Agency	Activities		Participants	
	Number (thousands)	Percent	Number (thousands)	Percent
Four-Year College or University	5,833	21.6	3,257	19.1
Two-Year College or Technical Institute	4,966	18.4	3,020	17.7
Employer	3,242	12.0	2,605	15.3
Grade or High School	2,347	8.7	1,881	11.0
Community Organization	2,129	7.9	1,784	10.5
Vocational, Trade, or Business School	1,748	6.5	1,469	8.6
Labor or Professional Group	1,373	5.1	1,035	6.1
Private Tutor	1,346	5.0	1,184	6.9
Other	3,971	14.7	3,292	4.4
Not Available	93	0.3	71	0.4
Totals	27,047	100.0	17,059	100.0

*Totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-8

Reasons for Taking Adult Education*

Reason	Participants (thousands)	Percent
Job Improvement or Advancement	7,123	41.8
Personal or Family Interests	4,730	27.7
General Information	2,330	13.7
To Obtain a New Job	1,962	11.5
Social or Recreational	1,327	7.8
Community Activity	450	2.6
Other	1,004	5.9
Not Available	101	0.6
Totals	17,059	100.0

*Totals may not add due to rounding.
Source: NCES survey, 1975.

TABLE A-9

Adult Education Participation Rates by Age: 1969, 1972, 1975*

Age Group	1969	1972	1975
17-24	10.5	12.2	11.5
25-34	18.5	19.9	20.6
35-44	13.2	15.0	15.0
45-54	9.0	10.2	10.5
55-64	4.3	5.3	5.8
65 and over	1.5	1.9	2.3
All Adults	10.0	11.3	11.6

*Full-time students are not included as participants.
Source: NCES surveys.

TABLE A-10

Adult Education Participation Rates by Previous Education: 1969, 1972, 1975*

Highest Level Completed	1969 (percent)	1972 (percent)	1975 (percent)
0-8	2.1	2.1	2.0
9-11	4.9	5.4	5.7
12	11.3	11.9	12.4
Some College	16.6	18.3	19.0
College Graduate	25.4	27.1	27.6
Postgraduate	29.6	32.9	31.6
All Adults	10.0	11.3	11.6

*Full-time students are not included as participants.
Source: NCES surveys.

TABLE A-11

Adult Education Participation Rates by Family Income Level: 1969, 1972, 1975*

Family Income (dollars)	1969 (percent)	1972 (percent)	1975 (percent)
Under 3,000	4.2	4.9	4.2
3,000-5,999	5.9	7.1	6.2
6,000-9,999	10.4	10.2	10.5
10,000-14,999	12.7	14.1	12.9
15,000-24,999	14.3	17.2	15.8
25,000+	15.2	17.0	17.7
All Adults	10.0	11.3	11.6

*Full-time students are not included as participants.
Source: NCES surveys.

FOOTNOTES

Chapter I

1. The essential notion of recurrent education as a concept is that the adult be given the opportunity to leave the employment market to engage in further education on a *full-time* basis. Education, rather than being concentrated in the first two and a half decades of life, then becomes an experience that can "recur" on a periodic basis throughout life. Similar terms in current use, such as "lifelong learning," also refer to a loosening up of the current emphasis on education early in life but without necessarily requiring sabbaticals from work. A good definition of the various terms currently used in discussing adults in education can be found in Carol Hernstadt Schulman, *Premises and Programs for a Learning Society* (Washington, D.C.: American Association of Higher Education, 1975).

2. For a more complete discussion of the demographics of the last part of this century, see Peter A. Morrison, *The Demographic Context of Educational Policy Planning* (Palo Alto, Ca.: Aspen Institute Program in Education for a Changing Society, 1975).

Chapter II

1. Marie D. Wann and Marthine V. Woodward, *Participation in Adult Education*, U. S. Department of Health, Education and Welfare, Office of Education, Circular No. 539 (Washington, D.C.: U. S. Government Printing Office, 1959); Imogene E. Okes, *Participation in Adult Education: Final Report 1969*, U. S. Department of Health, Education and Welfare (Washington, D.C.: U. S. Government Printing Office, 1974); National Center for Educational Statistics, *1972 Adult Participation Survey*, Washington, D.C., 1974; National Center for Educational Statistics, *1975 Adult Participation Survey* data (unpublished).

2. John W. C. Johnstone and Ramon J. Rivera, *Volunteers for Learning* (Chicago: Aldine Publishing Company, 1965).

3. Abraham Carp *et al.*, *Learning Interests and Experiences of Adult Americans* (Berkeley, Ca.: ETS, 1974).

4. The discrepancies between the surveys are bothersome. The ETS survey included independent study (without formal institutional involvement) while the NCES surveys do not. Definitions of an educational experience also vary between the two surveys with the result that the NCES survey probably undercounts educational activities *within* broader programs such as Cooperative Extension. The Johnstone survey of 1962 was probably the most thorough in that respondents were probed in depth to aid them in recalling experiences which they themselves might have dismissed as outside their personal definitions of "education." The researchers discovered that a good deal of educational activity went unreported if this was not done. The NCES survey, done as a part of a more general Bureau of the Census effort, would be expected

to significantly underreport the level of participation. Differences in the two survey instruments, however, make it very difficult if not impossible to determine the extent of such underreporting.

5. Florence B. Kemp, *Noncredit Activities in Institutions of Higher Education, 1967-68: Registrations* (Washington, D.C.: U. S. Government Printing Office, 1971).

6. Imogene E. Okes, *Adult Education in Public School Systems: 1968-69 and 1969-70* (Washington, D.C.: NCES, U. S. Government Printing Office, 1974).

7. Evelyn R. Kay, *Adult Education in Community Organizations 1972* (Washington, D.C.: NCES, U. S. Government Printing Office, 1975).

8. From May of 1968 to May of 1969, the Consumer Price Index increased by about 5 percent; from 1971 to 1972, by about 3 percent, and from 1974 to 1975, by almost 9 percent.

9. U. S. Bureau of the Census, "Educational Attainment in the United States: March 1973 and 1974," *Current Population Reports*, series P-20, no. 274, U. S. Government Printing Office, Washington, D.C., 1974.

10. James O'Toole *et al.*, *Work in America* (Cambridge, Mass.: MIT Press, 1973); Willard Wirtz, *The Boundless Resource* (Washington, D.C.: New Republic Book Company, 1975).

11. Duran Bell, "Aspiration and Dissatisfaction Among Workers," Chapter 2 in Rand Report R-158212-NSF, Rand Corporation, Santa Monica, Ca., 1975.

12. Anthony Pascal *et al.*, *An Evaluation of Policy Related Research on Programs for Mid-Life Career Redirection* (Santa Monica, Ca.: Rand Corporation, 1975).

Chapter III

1. Richard B. Freeman, *The Declining Economic Value of Higher Education and the American Social System* (Palo Alto, Ca.: Aspen Institute Program in Education for a Changing Society, 1975); "Overinvestment in College Training?" *Journal of Human Resources*, Summer 1975; *The Overeducated American* (New York: Academic Press, 1976); Stephen Dresch, "Demography, Technology, and Higher Education: Toward a Formal Model of Educational Adaptation," *Journal of Political Economics*, 1975.

2. A survey was also taken in 1957, the results of which were published in Wann and Woodward, *Participation in Adult Education*, 1959. This survey utilized a different instrument than the later surveys and can be used as a base line only with some caution.

3. An interesting beginning has been made by John Bishop and Jane VanDyk at the University of Wisconsin ("Can Adults be Hooked on College? Some Determinants of Adult College Attendance," Institute for Research on Poverty, Discussion Paper No. 319-75, 1975). Examining a small subgroup of the adult student population (married persons age 25 and over with a high school diploma but less than two years of college and now working toward a degree on a part-time or full-time basis), the authors identified the incentives of the G. I. Bill, the availability of a two-year college, and tuition levels as the major factors influencing attendance.

They found that demand for education by this group was *more* sensitive to the level of tuition than for recent high school graduates.

4. The trend-demographic or ratio-projection technique is the approach that the National Center for Educational Statistics and the Carnegie Commission on the Future of Higher Education utilize in estimating future enrollments for higher education. A detailed discussion of the technique is available in the NCES document by Frankel and Beamer called *Projections of Educational Statistics to 1982-83* (U. S. Department of Health, Education and Welfare, 1973). In this approach, ratios of enrollment to the total eligible population for past years are fitted by linear regression to a standard growth curve represented by the equation $y=K(1+e^{-(a+bt)})^{-1}$. Assumptions of an ultimate limit are made based on the behavior of that ratio over preceding years. The projected ratio for any given year is then applied to demograhpic estimates of the size of the eligible cohort for that year. The critical step is the choice of that limit and even when substantial past data are available, the choice can be quite judgmental. For a discussion of the weaknesses of some of the current techniques, see Dresch, "Demography, Technology, and Higher Education."

5. Using the technique described in footnote 4, the value of the constant K (treating it in this instance as a variable) can be determined through regression analysis. The value which represents the best fit to the data points is K=11.75. In other words, under the assumption that the phenomena being observed follow a natural growth curve (a relatively weak assumption in the absence of any justifying theory), those phenomena are approaching an upper limit of 11.75 percent.

6. The total fertility rate is an estimate of the total number of children per 1000 women if those women all pass through their reproductive years bearing at the age-specific fertility rate in effect at the time of the estimate, i.e., at the age-specific rates being experienced in 1975, the "average" woman would bear 1.8 children during her lifetime.

7. U. S. Bureau of the Census, *Current Population Reports*, series P, no. 601, "Projections of the Population of the United States: 1975 to 2050" (Washington, D.C.: U. S. Government Printing Office, 1975).

8. See, for example, the discussion of enrollment projections in Carnegie Commission on Higher Education, *Priorities for Action: Final Report* (New York: McGraw-Hill, 1973).

9. Carnegie Commission on Higher Education, *Priorities for Action*.

10. Bishop and VanDyk, "Can Adults Be Hooked on Education?"

11. Dresch, "Demography, Technology, and Higher Education"; Freeman, *The Declining Economic Value of Higher Education*.

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1. *A Measure of Success*, National Advisory Council on Extension and Continuing Education, Washington, D.C., 1973. For an updated listing of federal programs that support "lifelong learning" (without estimates of expenditures), see Pam Christoffel, *Federal Programs Supporting Lifelong Learning* (Washington, D.C.: Institute for Educational Leadership, 1976). This

more recent analysis counts some 275 federal programs that provide support to activities included in the concept of lifelong learning.

2. See, for example, Sarah M. Steele, *Cost Benefit Analysis and the Adult Educator, a Literature Review* (Syracuse, N.Y.: ERIC Clearinghouse on Adult Education, 1971).

3. Pascal *et al.*, *Evaluation of Policy Related Research Programs.*

4. Nicolas A. Osso, *Adult Basic Education Program Statistics, July 1, 1971-June 30, 1972* (Washington, D.C.: U. S. Government Printing Office, 1974).

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6. L. D. Dyer, "Implications of Job Displacement at Mid Career," *Industrial Gerontology*, September 1973, pp. 38-46.

7. See Joseph Lipson, "Problems and Potentials: Teaching-at-a-Distance," presented at an American Educational Research Association meeting, 1976.

8. Ibid.

9. For further information, see the *Bulletin*, published monthly by NCEB, 405 Oak Street, Syracuse, New York 13203.

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11. L. Richard Meeth, *The Impact of State and Federal Funding Regulations on Nontraditional Postsecondary Education* (Washington, D.C.: Institute for Educational Leadership, 1976).

12. See, for example, Herbert E. Striner, *Continuing Education as a National Capital Investment* (Kalamazoo, Mich.: Upjohn Institute, 1971).

13. Herbert A. Levine, *Strategies for the Application of Foreign Legislation on Paid Educational Leave to the United States Scene*, ERIC Document No. ED106517.

14. The most recent assessment of European programs is available in *Developments in Educational Leaves of Absence* (Paris: Center for Educational Research and Innovation, OECD, 1976), and in Levine, ibid.

15. Internal Revenue Service, Department of Commerce, *Tax Information on Educational Expenses*, Publication 508 (Washington, D.C.: U. S. Government Printing Office, 1976).

16. Selma J. Mushkin, *Recurrent Education*, National Institute of Education (Washington, D.C.: U. S. Government Printing Office, 1974).

17. See O'Toole *et al.*, *Work in America.*

18. For an extended set of arguments against the concept of recurrent education, see Mark Blaug, "Recurrent Education—The New Jerusalem," prepared for the Policy Research Center for Higher Education and Society, Washington, D.C., 1976.

Chapter V

1. Cf. Fred Best and Barry Stern, "Lifetime Distribution of Education, Work and Leisure: Research, Speculations and Policy Implications of Changing Life Patterns" (Washington, D.C.: Institute for Educational Leadership, Postsecondary Education Convening Authority, 1976).

2. Blaug, "Recurrent Education."

3. Cf. James Heffernan, "Report on Conference on Educational and Occupational Counseling and Information Systems for Adults," November 1976 (unpublished report).

4. The Ninety-Fourth Congress, Public Law 94-482, *Education Amendments of 1976*, Title I, Sections 131-134, 20 U. S. Code 1015, 1976.

5. Ibid., Section 133.

Appendix

1. Data from the 1972 survey is given where it is not yet available from the 1975 survey.

2. Differences in participation by skill level are probably distorted somewhat in the NCES data because of limitations on the definition of a learning experience. Much of the interaction a farmer has with Agricultural Extension agents, for example, would be missed by the NCES survey but would have been captured in the Johnstone and Rivera work.

3. Johnstone and Rivera, *Volunteers for Learning*.

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